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GREAT BATTLES OF WORLD WAR TWO

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"When the first Allied troops came ashore in Normandy on the morning of 6 June 1944, it not only marked the beginning of the end for the Axis in western Europe, but a true pinnacle of naval ingenuity.

From midget submarines to clever contraptions that cleared the landing beaches of obstacles, almost every aspect of planning had been shaped by lessons that the Allies had learned during their past four-and-a-half years at sea – both the glorious successes and crushing failures.

But even once **D-Day** had passed, the conflict was far from over. The US remained at loggerheads with Japan in the Pacific, each boasting **huge carrier fleets** that were taking maritime warfare to new heights.

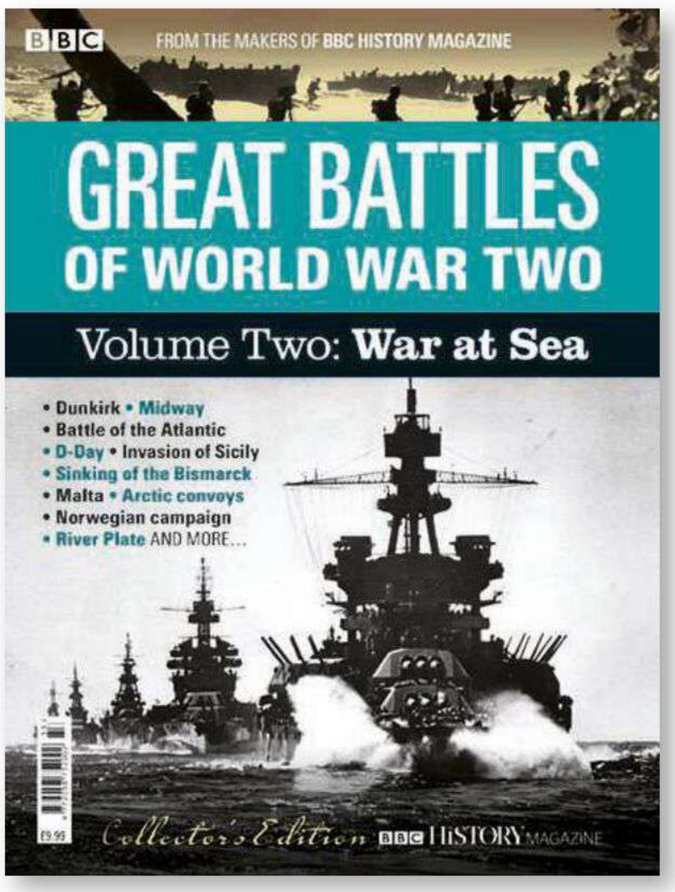
This special edition of *BBC History Magazine* examines these crucial moments during the war on the waves and more, charting the dramatic advances in both **naval tactics and technology** that would have been unthinkable only a few years earlier.

We also seek to answer some of the conflict's most compelling questions. Why, for instance, did the Allies gain the upper hand during the **battle of the Atlantic**? Was the epic clash at **Midway** really the most decisive encounter of the **Pacific War**? And just how vital were Britain's 'little ships' during the **evacuation of Dunkirk**?

Great Battles of World War Two: War at Sea is the second volume of a three-part series, which began with the publication of *Land Battles* earlier this year. Like its predecessor, it contains newly commissioned articles along with updated versions of features that have previously appeared in *BBC History Magazine*.

The final part of the trilogy – *War in the Air* – will be available to purchase from 8 October, but until then, I hope you find this volume an informative and engaging read.

Jon Bauckham
Editor



"Even without enemy action, the Arctic convoys represented a marathon of human and mechanical endurance"

GH BENNETT describes the experiences of merchant seamen who braved the elements to deliver supplies to the Soviet Union on page 56

ON THE COVER: US INFANTRY DURING TRAINING AT GUADALCANAL, 1944 (GETTY IMAGES)/USS PENNSYLVANIA LEADING A COLORADO-CLASS BATTLESHIP AND THREE CRUISERS, PHILIPPINES, 1945 (GETTY IMAGES)
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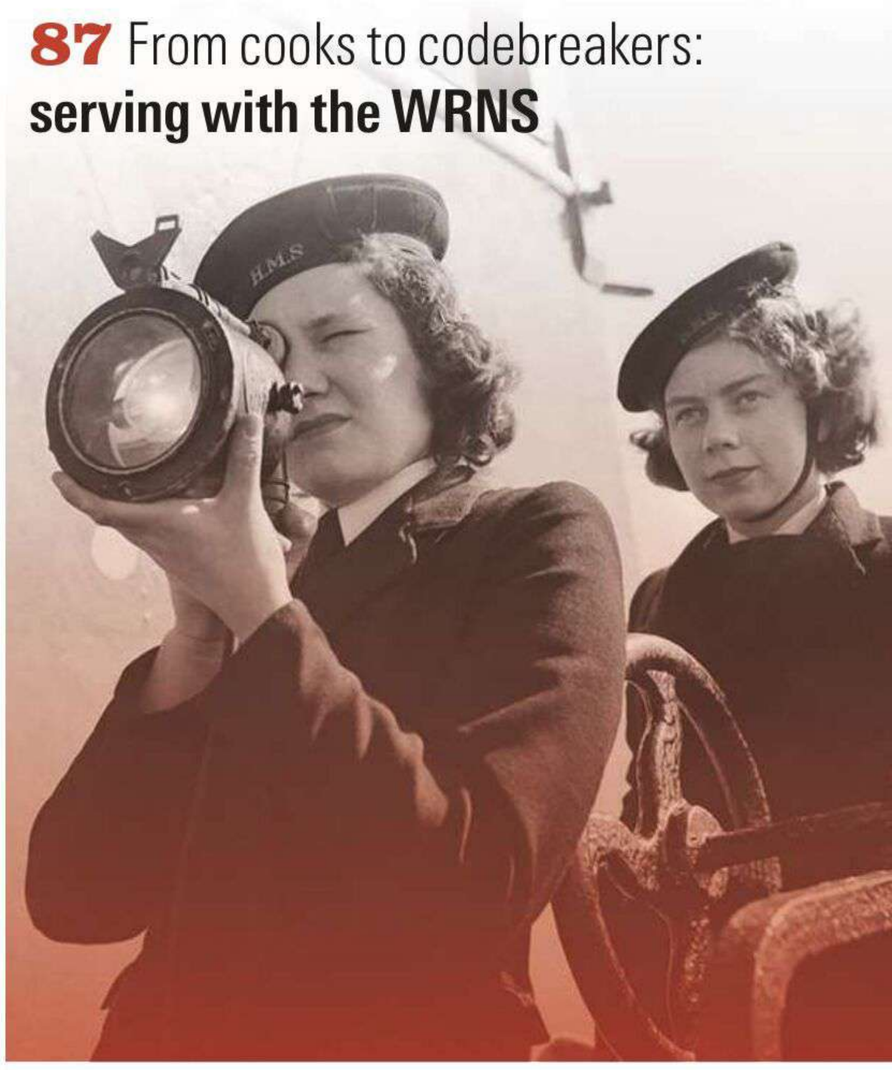

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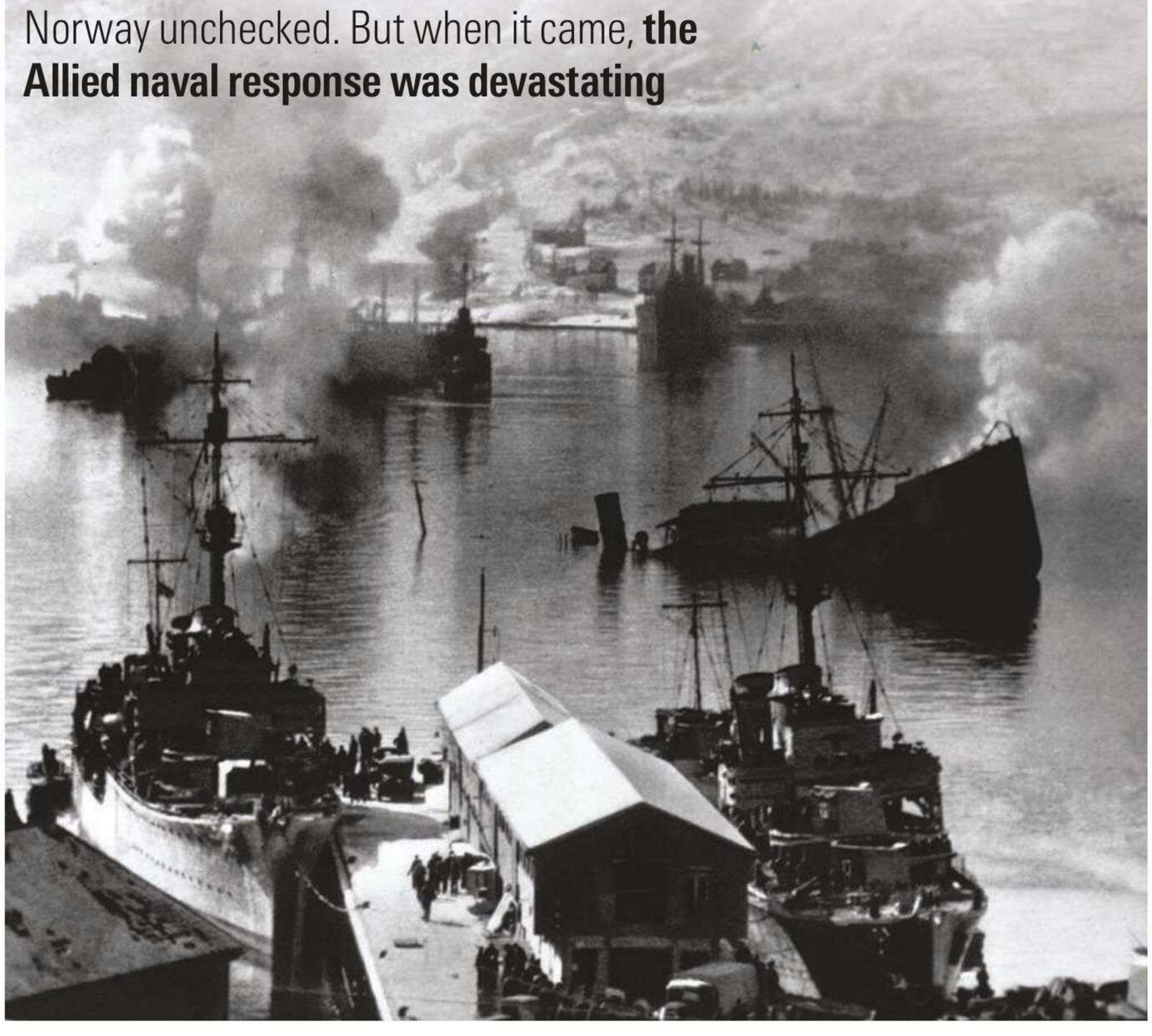

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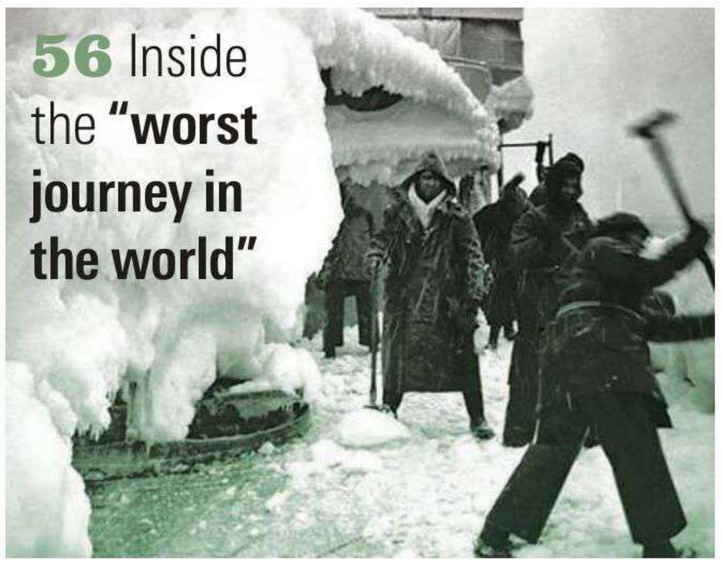

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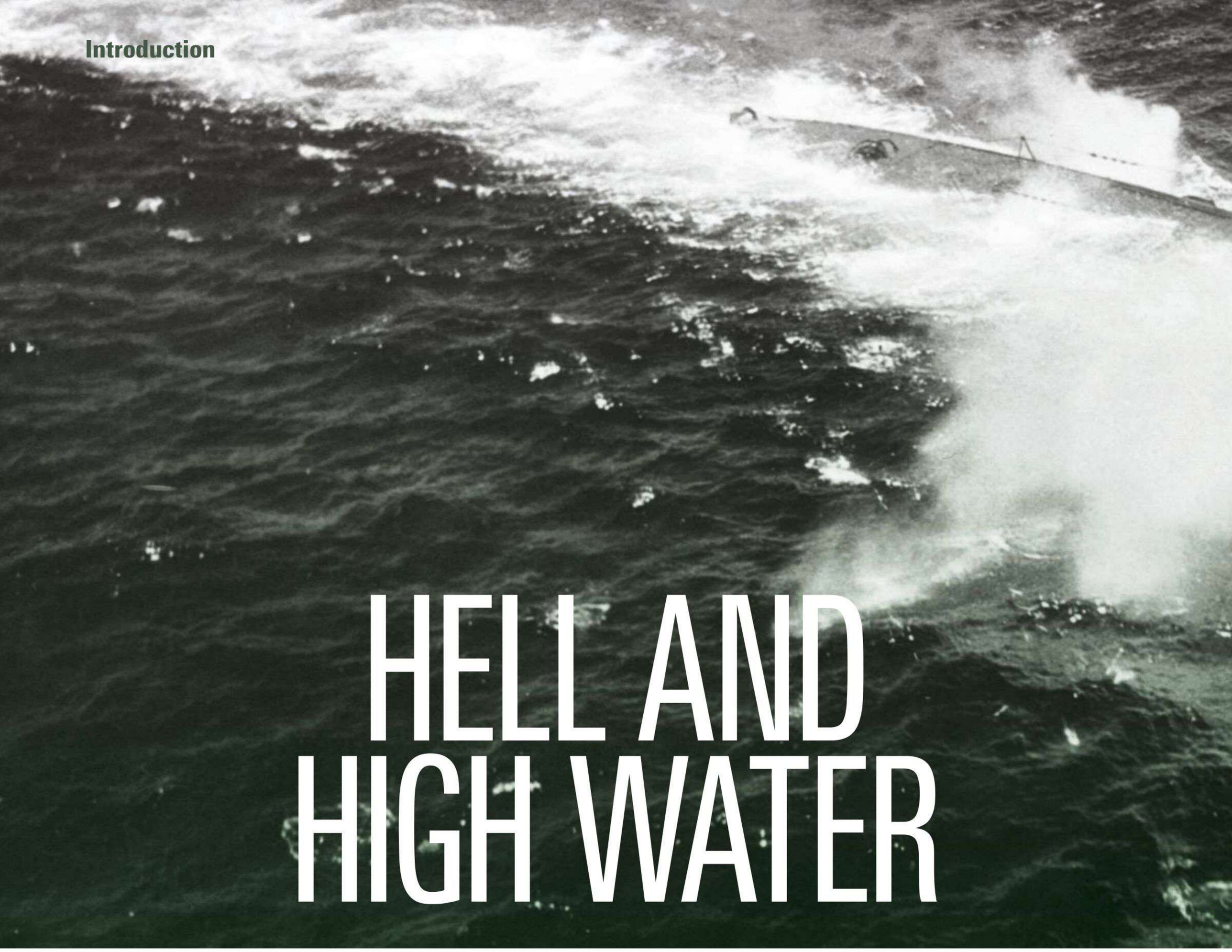


HELL AND HIGH WATER

If the tank was the most impressive battlefield innovation of the First World War, then its maritime equivalent was the submarine. Although the submarine had made a fleeting appearance in the American Civil War of the 1860s, it wasn't until half a century later that its effectiveness was truly felt with the rapid technological advances of the early 20th century.

Yet, despite the fact that during the First World War a comparatively small German U-boat fleet had brought Britain to the brink of starvation by sinking supply ships from North America, the submarine was still viewed overall as a minor weapon in a nation's naval armoury in the interwar years.

Britain, America, Japan and Germany believed that surface ships held the key to maritime domination, a philosophy in part explained by a generation of senior naval staff who in their youth had been imbued with the romance of battleships and cruisers. Submarine warfare, in contrast, was regarded as sneaky and cowardly.

Britain wanted them outlawed as weapons of war, but their demand was rejected. Nonetheless, a 'submarine code' was incorporated into the Washington Naval Treaty of 1922, which curtailed the power of the submersibles to attack merchant shipping. Eight years later another accord, the London Naval Treaty, went even further in restricting the submarine, and in 1936 a second London treaty was signed by more than 30 nations, including Germany, Russia, Britain and America, which restricted the size and armament of submarines.

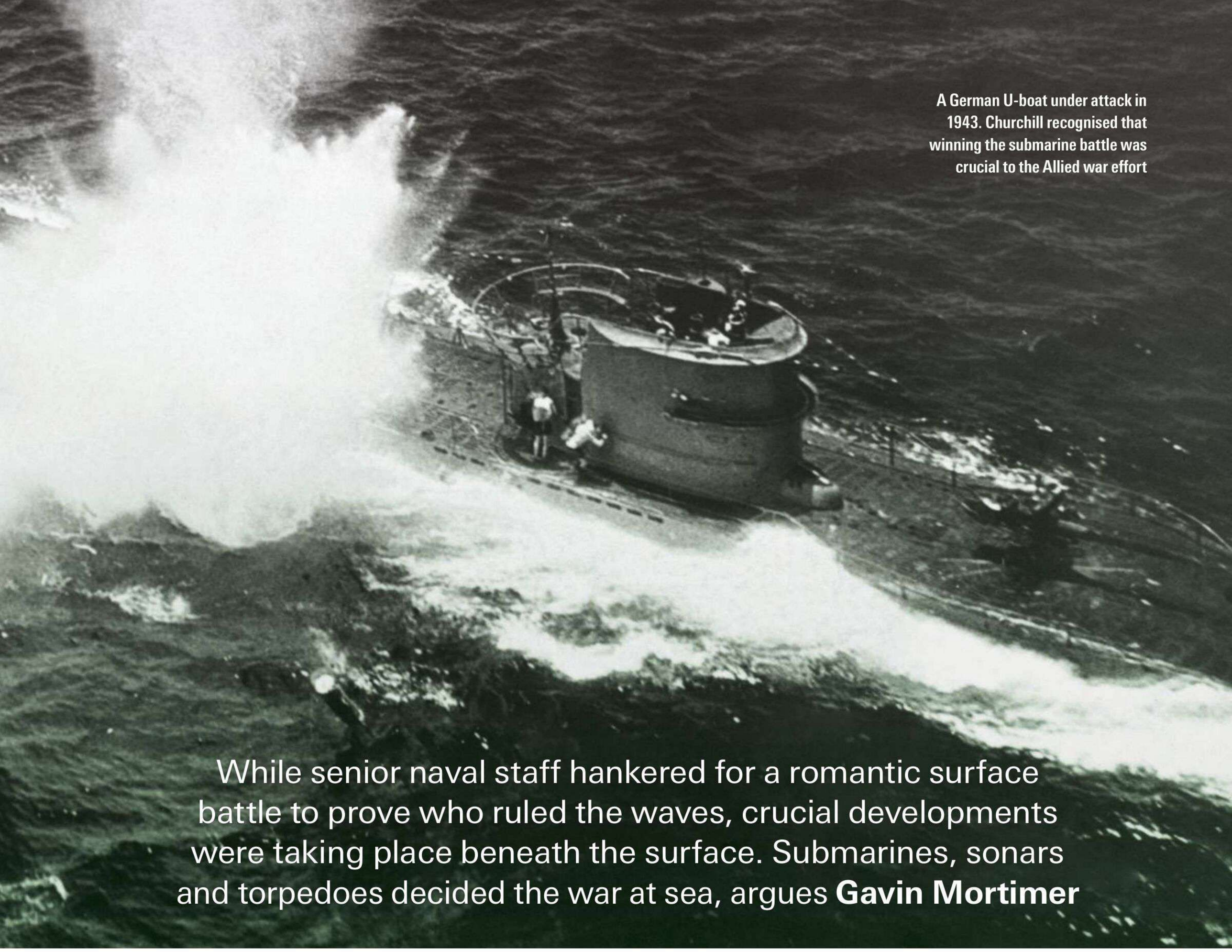
'BATTLESHIP MENTALITY' WAS OBSOLETE: WAR AT SEA WOULD BE WON BY THOSE WHO COULD BEST EXPLOIT TECHNOLOGICAL ADVANCES

In Germany, as in most countries, the submarine was a divisive weapon in 1939. The head of the U-boat fleet, Admiral Karl Dönitz, had been a submarine commander in the 1914–18 war and believed they would be key in any future global conflict. His view was not shared by Erich Raeder, head of the Kriegsmarine, who was adamant the Royal Navy could only be defeated in what was called in naval parlance a 'decisive battle'.

Adolf Hitler appreciated both sides of the argument, but he hadn't forgotten that it was the damage inflicted by U-boats on merchant and passenger ships – notably the sinking of the RMS *Lusitania* in 1915 – that had brought the US into the war. Pressed by Dönitz to increase U-boat production in the late 1930s, the führer demurred, instead agreeing to the Luftwaffe's request to prioritise aircraft manufacture.

The belief that one cataclysmic battle would decide naval dominance held sway

ALAMY



A German U-boat under attack in 1943. Churchill recognised that winning the submarine battle was crucial to the Allied war effort

While senior naval staff hankered for a romantic surface battle to prove who ruled the waves, crucial developments were taking place beneath the surface. Submarines, sonars and torpedoes decided the war at sea, argues **Gavin Mortimer**

in both Japan and the United States in the 1930s. "The chief strategic function of the fleet is the creation of situations that will bring about decisive battle, and to provide sufficient battle power to bring about the defeat of the enemy," explained Commander Richmond Kelly Turner to the US Naval War College Class in 1937.

The battleship embodied naval power in American eyes, and aspirant officers studied battles such as Trafalgar (1805) and Jutland (1916) in the interwar period. While they looked to the past, senior naval officers had to accept that the future American fleet must comply with the restrictions imposed by the Washington and London treaties. Not only did these limit the tonnage of warships and cruisers for all signatories, but of greater significance for the US was that they forbade further fortification in existing military bases in the Pacific.

The same restrictions applied also to the Japanese navy, whose senior staff shared their US counterparts' belief in the 'decisive battle'. Where they differed was in Japan's grasp of how submarines and air power could complement the surface fleet. As early as 1933, the Japanese had developed a powerful torpedo with a maximum range of 24 miles, vastly superior to the Americans' torpedoes, which were plagued by ordnance defects for many months.

Furthermore, these torpedoes could be delivered not just by submarines but by cruisers and aircraft too, the latter flying from carriers far out at sea. Also capable of launching devastating aerial attacks were the 'Zeros', a Japanese fighter superior to any aircraft the Americans had to offer.

No naval power had more aircraft carriers in 1939 than Britain. The Royal Navy had seven such vessels, which was only natural for the country that in 1917 had been the first to land an aircraft on a moving ship. In the 1930s, a carrier aircraft was developed – the Fairey Swordfish – which for a biplane proved a surprisingly effective torpedo-bomber.

It was an indication Royal Navy chiefs were slowly grasping that their 'battleship mentality' was obsolete, and that a future war at sea would be won by the nation who could best exploit technological advances. To that end, Britain was fortunate that Winston Churchill – first lord of the Admiralty from 1911 to 1915 – retained a close interest in naval matters in the 1930s and was one of the few political figures to recognise the naval threat posed by Britain's enemies.

In the summer of 1938, Churchill was shown a demonstration of the latest version of 'Asdic' (Anti-Submarine Detection Investigation Committee), an early form of sonar used for locating submarines. It made a deep impression on Churchill, and years later when he wrote his war memoirs, he reflected: "The Asdics did not conquer the U-boat; but without the Asdics the U-boat would not have been conquered." H

Gavin Mortimer is a historian and author. His books include *The Men Who Made the SAS* (Constable, 2015) and *Guidance from the Greatest Generation* (Constable, 2020)

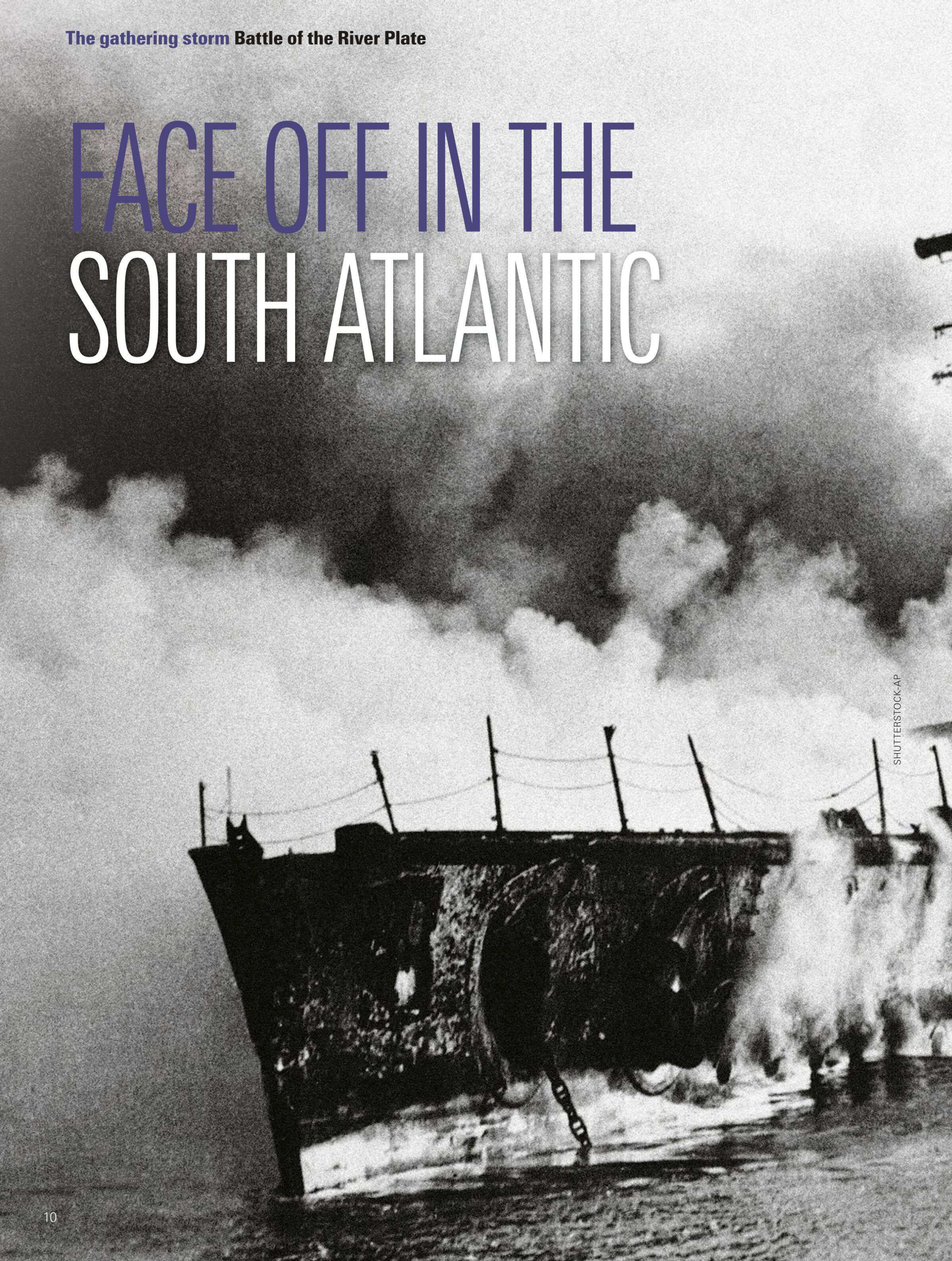
PART ONE
THE GATHERING STORM

"Convinced by British deception that he was facing certain destruction, the German navy captain chose self-immolation"

GETTY IMAGES

First Lord of the Admiralty Winston Churchill visits the crew of HMS *Exeter* in February 1940, two months after they defeated the Germans at the battle of the River Plate

FACE OFF IN THE SOUTH ATLANTIC



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In 1939, a gifted German navy captain was wreaking havoc on Allied shipping in the Atlantic – and drawing the attention of one of the Royal Navy's greatest tacticians. **Eric Grove** tells a story of heroism and tragedy in the battle of the River Plate

Explosive denouement
Charges rip through *Admiral Graf Spee* in Montevideo harbour in 1939 as the captain scuttles his ship rather than have it captured

At the outbreak of war on 3 September 1939, Germany had at sea two of its so-called 'armoured ships' – or in German, *Panzerschiffe*. Generally nicknamed 'pocket battleships', the Panzerschiffe had been designed to be as powerful as possible within the severe restrictions of the Treaty of Versailles. They had been originally built for operations against the French navy in the North and Baltic seas, but now their role was commerce raiding: sinking Allied merchantmen in the open ocean.

The prototype Panzerschiff, *Deutschland*, was in the north Atlantic, where the rapidly introduced convoy system soon neutralised it. The other, *Admiral Graf Spee*, encountered only individual merchant ships as she cruised in the south Atlantic. Her captain, Hans Langsdorff, was a humane and skilful seaman with a keen sense of both honour and humour. He enjoyed creating chaos on the British sea routes and tweaking the tail of the lion that had defeated his service and his country in 1918.

Graf Spee took her first ship, SS *Clement*, at the end of September 1939, followed by *Newton Beech* on 5 October, *Ashlea* on 7 October and *Huntsman* on 10 October. She refuelled from her auxiliary tanker *Altmark* and then sank *Trevanion* on 22 October before refuelling again and making off round the Cape of Good Hope. Heavy seas created problems for the none-too-seaworthy German ship, which had never been designed for such conditions. Thus in November, Langsdorff only had one success, boarding and sinking the coastal tanker *Africa Shell*, on the 15th. However, he had made it seem to the British that there was perhaps an additional German raider at large in the Indian Ocean. *Graf Spee* again braved the heavy seas south of the Cape to meet *Altmark* once more.

Langsdorff now dropped a bombshell to his officers. Up until now, he had scrupulously obeyed his standing orders to avoid action with British warships. The commander of the German navy, Grand Admiral Erich Raeder, had studied the operations of German mercantile raiders in the previous war and correctly diagnosed their mistakes in engaging Allied warships. Raiders could only survive by avoiding trouble. Far from home in the south Atlantic, Langsdorff now announced that he would disobey these orders and seek action in order to score a notable German success, just as the admiral after whom his ship was named had done in 1914 off Coronel.

LANGSDORFF LIKED DISRUPTING THE BRITISH SEA ROUTES AND TWEAKING THE TAIL OF THE LION THAT HAD DEFEATED GERMANY IN 1918

Hans Langsdorff, captain of the German battleship *Graf Spee*, in December 1939

On 2 December, *Graf Spee* sank the cargo liner *Doric Star*, followed by *Tairoa* the following day. Then, in a final meeting with *Altmark*, most officer prisoners were transferred to *Graf Spee*, the other sailors being left in terrible conditions in the tanker. On 7 December, *Graf Spee* sank *Streonshalh*, capturing useful papers revealing British shipping movements and demonstrating the potentially rich pickings to be obtained off Uruguay's Rio de la Plata (River Plate). Langsdorff's appetite was also whetted by a message from Germany reporting a convoy expected off the estuary with a suitably weak escort. So he moved towards these busy shipping lanes – and his doom.

Langsdorff squares up

Commodore Henry Harwood was one of the finest and most experienced cruiser commanders in the Royal Navy. He had led the South America Division for some time and understood the region very well indeed. In one of the most inspired pieces of guesswork in naval history, he ordered a concentration of his available units, the light cruisers *Ajax* and *Achilles* and the heavy cruiser *Exeter*, to gather off the Plate on 10 December. Three days later, *Graf Spee* came into sight.

Langsdorff could have got away but, mistaking the strength of the opposition, he closed in. He intended to destroy the larger warship first, but his attack was decisively weakened by half his main armament breaking down and being out of action for a few crucial minutes. He might have sunk *Exeter* otherwise, as *Graf Spee* found the range with her third salvo. Eventually, the British heavy cruiser was seriously hit on the turret just forward of the bridge and apparently disabled. Harwood was deploying his light cruisers as a separate division to divide *Graf Spee*'s attention and fire. The weight of 152mm fire being delivered by the 16 guns of *Ajax* and *Achilles* forced Langsdorff to switch his main armament to them. Then the threat of torpedo attack from the *Exeter* and its continued accurate fire forced him to return to the heavy cruiser. *Exeter* was heavily damaged by more hits, disabled as a fighting unit and forced out of the action. Harwood ordered her to the Falkland Islands for repairs.

Graf Spee was given no respite from the two light cruisers, which continued to pepper the larger ship with hits as they chased her westward. *Ajax*'s Fairey Seafox spotter aircraft assisted British fire control (after some initial problems). *Graf Spee* struck back, disabling *Ajax*'s after turrets. Harwood decided to break off the action, but Langsdorff continued towards the Plate, shadowed by the two British

MAP: PAUL HEWITT-BATTLEFIELD DESIGN/GETTY IMAGES

HMS *Ajax* and HMS *Achilles* alter course towards the River Plate ahead of engaging *Graf Spee* on 13 December 1939

cruisers. His ship had sustained a hole in the forecastle, with significant damage also inflicted on the galley, fuel system and fire control equipment. Langsdorff himself had been wounded. He decided to put into Montevideo for repairs – a move he would come to bitterly regret.

He could hardly have picked a worse refuge. The Uruguayan capital was MI6's main South American station, and British influence was considerable. The senior British diplomat, Eugen Millington-Drake, was an ebullient and effective figure, ably assisted by the naval attaché from Buenos Aires, Captain Henry McCall, and the MI6 station chief, Rex Miller. At first they tried to get *Graf Spee* ordered to sea, but Harwood soon made it clear that she should remain as long as possible so that Allied reinforcements could arrive. *Exeter* was replaced by HMS *Cumberland*, which had steamed post-haste from Port Stanley in the Falklands, but it would take capital ships with high-calibre guns to be certain of dealing with the pocket battleship. The carrier *Ark Royal* and battlecruiser *Renown* were some days steaming away.

British merchant ships were sailed out of Montevideo to delay *Graf Spee*, under the 24-hour rule, which forbade enemy warships going to sea in pursuit. Meanwhile, a British

TOPFOTO/GETTY IMAGES

HOW LANGSDORFF'S LUCK RAN OUT

Hans Langsdorff and *Graf Spee* caused chaos on British sea routes in the Atlantic, but on 13 December 1939 three factors combined to end their run of good fortune

1 HE UNDERESTIMATED THE ENEMY'S STRENGTH

Firstly, Langsdorff mistakenly thought he was only facing a light cruiser and two destroyers, rather than a heavy cruiser and two light cruisers. He was misled by the shape of *Exeter*'s two funnels, reminiscent of an old 'C' or 'D' class ship, and the single funnels of *Ajax* and *Achilles*, which recalled the single funnel of the latest British destroyers. He therefore considered it safe to engage what seemed an inferior force, instead of using the superior responsiveness of *Graf Spee*'s diesel engines to speed away.

2 HE OVERESTIMATED HIS SHIP'S CAPABILITIES

Langsdorff's ship was far from being as powerful as she was vaunted. *Graf Spee* had a strong main armament for a ship of her size – six 280mm guns – but these could only be effective on one target at a time. Those in another direction would be disturbed only by her secondary armament of 150mm guns, in relatively easily neutralised open mountings. The designers of the pocket battleships had also been forced to skimp on hull armour. The Germans were shocked to find that *Exeter*'s 203mm shells could penetrate *Graf Spee*'s main armour belt. *Graf Spee*'s diesel engines vibrated so much that half of her main armament was disabled as she went into action, when a vital screw fell out. Her hull design, built for the Baltic and North Sea, could not take damage and still retain seaworthiness in Atlantic conditions without repair.

3 HE FACED A MASTER TACTICIAN

Brilliantly, Harwood exploited these weaknesses to achieve victory. He was the Royal Navy's leading expert in how to engage a pocket battleship, having been at the cutting edge of the development of pre-war doctrine on how to deal with such ships. He was the worst adversary Langsdorff could possibly have met.

Harwood knew how to take on a pocket battleship

Exeter is welcomed home to Plymouth in 1940 after her encounter with *Graf Spee*

deception operation convinced the Germans that heavy warships were already in place. The Uruguayans became frustrated with both sides, but the more threatening German attitude led them to side eventually with the British, and accede to the request to allow *Graf Spee* to remain beyond the time that Montevideo had originally set for the Panzerschiff's departure.

This decision was overtaken by events, as the hard-pressed Langsdorff had already decided to scuttle his ship. On Sunday 17 December, *Graf Spee* began to disembark her crew. That evening, watched by huge crowds and reported live on radio, she sailed out of Montevideo – and stopped. Charges had been laid and these were exploded after her captain and the last of *Graf Spee*'s crew left the ship. The forward charges failed to go off but the after and midships explosions were enough to destroy the pocket battleship.

Langsdorff felt that his ship's company should not pay the price of his disobedience in deliberately engaging British warships. Convinced by British deception that he was facing certain destruction, he chose to emulate the self-immolation of the German High Seas Fleet 20 years before, when officers had scuttled their ships en masse after the armistice. Scuttling vessels carried no stigma in the German navy.

LANGSDORFF FELT THE SITUATION KEENLY. WHEN HIS MEN WERE SAFE, HE PLACED A GERMAN FLAG ON HIS HOTEL BED AND PUT A GUN TO HIS HEAD

Langsdorff, however – not the most typical of officers – felt the situation keenly. He decided on a personal sacrifice to atone for his mistakes, but felt unable to go down with his ship because of the need to arrange safe internment for his men on the other side of the Plate in Argentina. As soon as that was accomplished, he placed a German ensign, probably one of those flown by *Graf Spee* as she left Montevideo, on the bed in his hotel room. He lay down, took a pistol and fired at his head – and missed. The second shot struck home. An honourable and brave man had shared the fate of his ship. H

Eric Grove is a naval historian and defence analyst. His books include *The Price of Disobedience: The Battle of the River Plate Reconsidered* (The History Press, 2000)

GETTY IMAGES

THE FORGOTTEN BATTLE OF BRITAIN

Sea change
HMS *Bittern* on fire and severely damaged after a German air attack in Namsos fjord, 30 April 1940. Both sides sustained heavy losses in the battle of Norway, but the German navy was less able to absorb these than its British enemy

TOPFOTO

The RAF's Battle of Britain heroics are credited with saving the nation. But, argues **Nick Hewitt**, it was the Royal Navy's savaging of the German fleet in the battle of Norway in the spring of 1940 that scuttled Hitler's grand invasion plans

We're all familiar with the story. In the summer of 1940, Royal Air Force pilots defeated Nazi Germany's Luftwaffe over the skies of southern England and saved Britain from invasion. "Our fate," Winston Churchill wrote years later, "depended on victory in the air."

The Battle of Britain was a humiliation for the Luftwaffe, which may have lost almost 2,000 aircraft and seen well over 4,000 airmen killed, wounded, missing, and captured – undoubtedly far more than the British, although figures vary. It was a propaganda triumph for a beleaguered island, with strategic implications, in particular in the US, where Americans considered anew the UK's will to resist. It was an important victory, and the pilots' courage was undeniable.

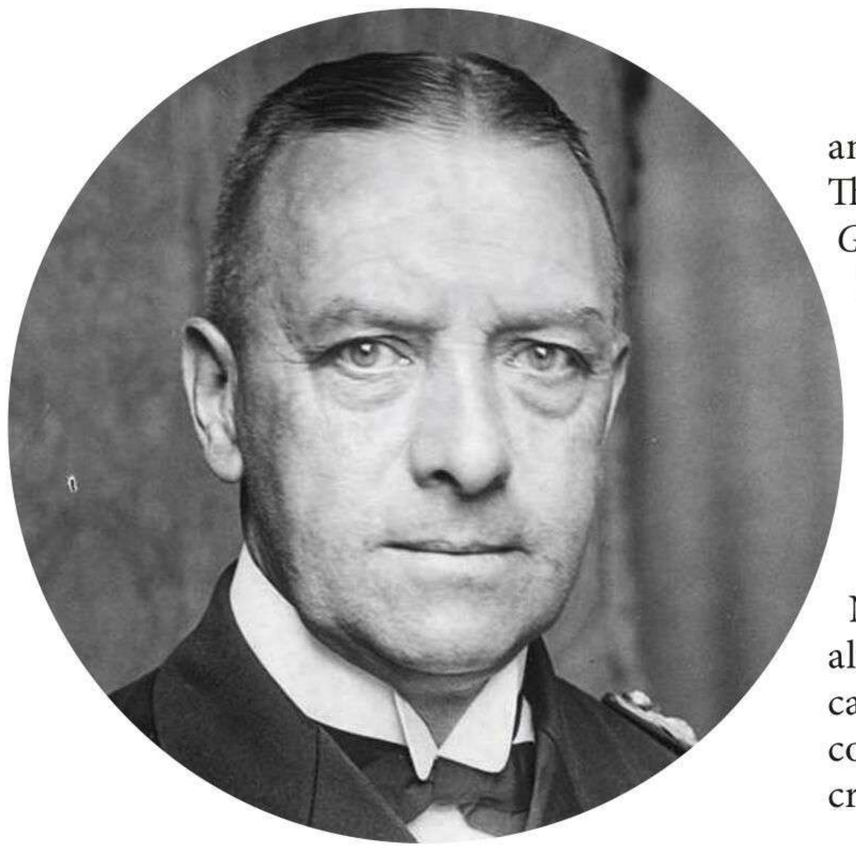
But, in truth, there's little chance that Germany could have invaded England, even if the RAF had been defeated in the Battle of Britain. That's because, some weeks earlier, Britain had already in effect been saved. It had been saved in the battle of Norway, a now widely forgotten land, air and sea campaign fought between 9 April and 10 June 1940. And Britain's saviour, as so many times before in what Churchill called its "long island story", was the Royal Navy.

Supported by French, Norwegian and Polish allies, the British fleet wrought terrible damage on its German counterpart, the Kriegsmarine, in the icy waters of Scandinavia. So sizeable was that damage, it convinced Germany's naval leaders that the Kriegsmarine was totally inadequate to play a significant role in an invasion of Britain.

Cat and mouse

At the start of 1940, Norway was neutral and almost defenceless. Unfortunately, through its economic activities, it was also incapable of staying quietly 'beneath the radar' of the belligerents. That's because, in winter, the ice-free northern port of Narvik provided the only window on the world for Swedish iron ore – a vital resource for Germany. So, while Hitler conquered Poland and the Allies prepared themselves for a German attack into the Low Countries and France, both sides played cat and mouse in the north. On 16 February 1940, the British destroyer HMS *Cossack* entered Norwegian waters illegally, and a boarding party freed 300 captured British merchant sailors from the German supply ship *Altmark*, whose presence was also illegal.

But the stand-off wouldn't last for long.



Grand Admiral Erich Raeder, chief of the Kriegsmarine, had planned for a war in 1946, not 1940

During the brief 1939–40 'Winter War' between Finland and the Soviet Union (who had signed a non-aggression pact with Germany), Britain and France prepared a force to cross Norwegian territory, aid the Finns and seize Narvik. Anticipating this, the Germans drew up plans for a full-scale invasion of Norway and Denmark, code-named Operation Weserübung. The Allies shelved their plans after the Soviet-Finnish armistice on 13 March 1940, opting instead for a more limited mission to mine Norwegian waters, but in Germany the commander-in-chief of the Kriegsmarine, Grand Admiral Erich Raeder, persuaded Hitler that Weserübung should proceed anyway. On 8 April, the British laid their mines. One day later, the Germans invaded.

Weserübung was an ambitious simultaneous sea and air attack on Norway's most important ports, accompanied by a rapid blitzkrieg through Denmark. The first warning came on the 8th, when the Polish submarine *Orzeł* sank a German transport and discovered it to be full of armed troops. The following day, the British destroyer *Glowworm* stumbled across the German heavy cruiser *Admiral Hipper* and was sunk with heavy loss of life, while the British battlecruiser *Repulse* fought a brief, inconclusive action against the German battlecruisers *Scharnhorst* and *Gneisenau* in the teeth of an Arctic gale.

German paratroopers seized the Norwegian capital, Oslo, in broad daylight, although when seaborne reinforcements came up the Oslo fjord, a Norwegian coastal defence battery sank the heavy cruiser *Blücher*.

The cities of Bergen and Kristiansand fell after brief firefights. Trondheim was also taken without difficulty. At Narvik, 600 miles to the north, German destroyers landed elite mountain troops who easily seized the port. After one day, the Germans held Norway's key towns, but the garrisons were isolated and under-supplied. Much depended on the Allied response at sea.

The Allies attack

That response, when it came, was devastating. Allied submarines were first on the scene. They wrought havoc on German transport ships along the Norwegian coast, and also sank the cruiser *Karlsruhe* and seriously damaged the pocket battleship *Lutzow*. They were followed by Fleet Air Arm Skua dive bombers, which sank the cruiser *Königsberg* in Bergen harbour – history's first sinking of a major surface ship by air attack.

"The tracer bullets were drifting up towards us like lazy golden raindrops," wrote Skua pilot Captain RT Partridge. "Now, 2,500 feet, no fear or apprehension, just complete and absolute concentration; mustn't drop too high and must watch going too low and blowing myself up with my own bomb blast... at 1,800 feet I dropped my bombs and was away towards the sea at nought feet. My observer reported a near miss on the ship's port bow."

At Narvik, the German destroyers were stranded due to lack of fuel, and the Royal Navy took immediate and violent advantage. Captain Bernard Warburton-Lee's 2nd Destroyer Flotilla entered Narvik fjord on 10 April, sinking two destroyers, damaging three more, and sinking seven stores ships.

Warburton-Lee's action provided more evidence of British naval superiority, but it ended in disaster. While racing for safety, the British flotilla was ambushed, and in a short, bloody engagement the Germans sank two British destroyers, including Warburton-Lee's flagship, HMS *Hardy*, which was

THE ROYAL NAVY RESPONDED VIOLENTLY, SINKING TWO GERMAN DESTROYERS, DAMAGING THREE MORE AND SINKING SEVEN STORES SHIPS

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All-out attack
German mountain troops board a transport ship bound for Norway on 8 April 1940 (left), and reinforcements land near the port of Narvik the following month (above). Operation Weserübung – the German invasion of Denmark and Norway – was a daring ground, air and sea assault

Line of fire
Wehrmacht troops battle for the village of Haugsbygd, north of Oslo, on 14 April 1940. German forces swiftly overran Denmark and seized Norway's capital

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TIMELINE **NORWAY, 1940: HOW HITLER LOST THE EDGE AT SEA**

16 February 1940
Naval forces from HMS *Cossack* free British prisoners held aboard German supply ship *Altmark* in Norwegian waters.

8 April
Polish submarine *Orzeł* sinks clandestine German troop transport *Rio de Janeiro*. HMS *Glowworm* is sunk by German cruiser *Admiral Hipper*.

The last moments of *HMS Glowworm*, as seen from the German cruiser *Admiral Hipper*

9 April
Operation Weserübung. German forces invade Norway and Denmark, overrunning Denmark in hours and seizing the Norwegian capital, Oslo, and five major ports.

German troops approach Narvik in dinghies as they commence Operation Weserübung

10 April
First naval battle of Narvik. Two German destroyers and seven supply ships are sunk, along with two British destroyers. Fleet Air Arm air strike sinks German cruiser *Königsberg* at Bergen.

11 April
British submarine *Spearfish* torpedoes German pocket battleship *Lützow*.

13 April
The second naval battle of Narvik. The remaining eight German destroyers and U-64 are sunk.

British troops are evacuated from Namsos, central Norway, in May 1940

14–19 April
British and Allied troops land at Namsos and Åndalsnes, near Trondheim, in central Norway, and at Harstad, near Narvik.

3 May
The withdrawal of Allied troops from central Norway is completed.

13 May
An Allied ground attack on Narvik begins with an amphibious landing at Bjerkvik.

28 May
French and Norwegian troops recapture Narvik.

The Narvik Shield – a Nazi military decoration marking the 1940 invasion of Norway

8 June
As German forces sweep through France, Allied troops are evacuated from Narvik. Aircraft carrier HMS *Glorious* is sunk by *Scharnhorst* and *Gneisenau*. *Scharnhorst* is torpedoed.

10 June
Norway surrenders to German forces. The Nazis will control Norway until May 1945.

10 June – 31 October
The Royal Air Force triumphs over the Luftwaffe in the Battle of Britain.

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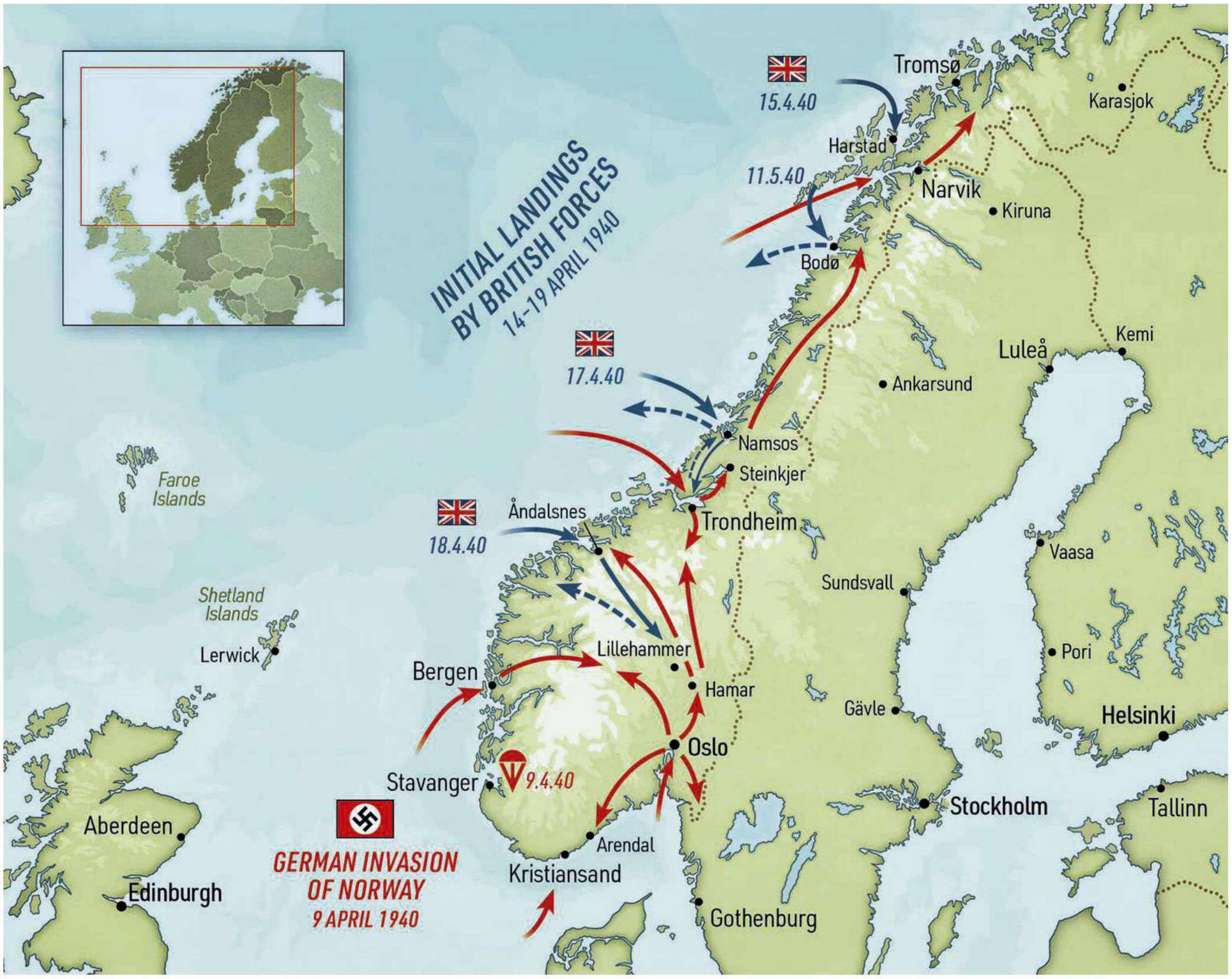

Our map shows the battle of Norway, fought between Allied and German forces from April to June 1940

driven ashore in flames. Warburton-Lee was killed; he later received a posthumous Victoria Cross. Leading Seaman Fred Mason witnessed his last moments: "They had the captain lashed on a stretcher, lowering him feet first, and wanted me to grab him and lay him on the deck. As he came down I saw that his head and face were in a terrible state; he was groaning and breathing heavily... the officers dumped the skipper in the water and dived in after him. He was dead when they got him to the beach."

Early on 13 April, the British battleship *Warspite* arrived with nine destroyers to wreak more havoc. *Warspite*'s float plane almost immediately sank the German submarine U-64. The day did not improve for the Germans, who were unable to fight or flee due to their lack of fuel and ammunition, as the British sank or drove ashore all the surviving destroyers, leaving the German mountain troops isolated and vulnerable.

But for all their successes in the waters around Norway, the Allies couldn't prevent German ground forces advancing north from Oslo. The Allied high command was under pressure to respond, but was unsure whether to retake Trondheim or go for Narvik. Eventually, it made the questionable decision to undertake both operations simultaneously. The Trondheim force landed at two small ports to the north and south of the city on 17 April and advanced inland, but both forces were poorly organised and equipped, and had almost no air cover. John Hodgson of the 49th West Riding Division recalled how "we did not see any German soldiers, but saw plenty of German planes which bombed and strafed us throughout the long hours of daylight".

Pushed steadily backwards and under round-the-clock aerial bombardment by Luftwaffe aircraft operating out of Denmark and southern Norway, the troops were evacuated after just two weeks.

The Allies now focused their efforts on Narvik alone, launching an assault on the town on 12 May. Under sustained pressure from British, French and Polish forces, Narvik fell on the 28th, the Germans withdrawing east towards the Swedish frontier.

But with German armies sweeping through France, the victory at Narvik was irrelevant. Given that Allied forces were crumbling in the west, keeping more than

BRITISH, POLISH AND FRENCH FORCES ADVANCED, AND NARVIK FELL – BUT WITH GERMAN ARMIES SWEEPING THROUGH FRANCE, VICTORY WAS IRRELEVANT

MAP: PAUL HEWITT-BATTLEFIELD DESIGN

IN DEPLOYING MOST OF THE KRIEGSMARINE TO NORWAY, HITLER ALLOWED THE ROYAL NAVY AND ITS ALLIES TO SCORE A VITAL VICTORY

Scandinavian skirmish
The battle of Narvik in 1940, where stranded German destroyers were methodically sunk or driven ashore by the British

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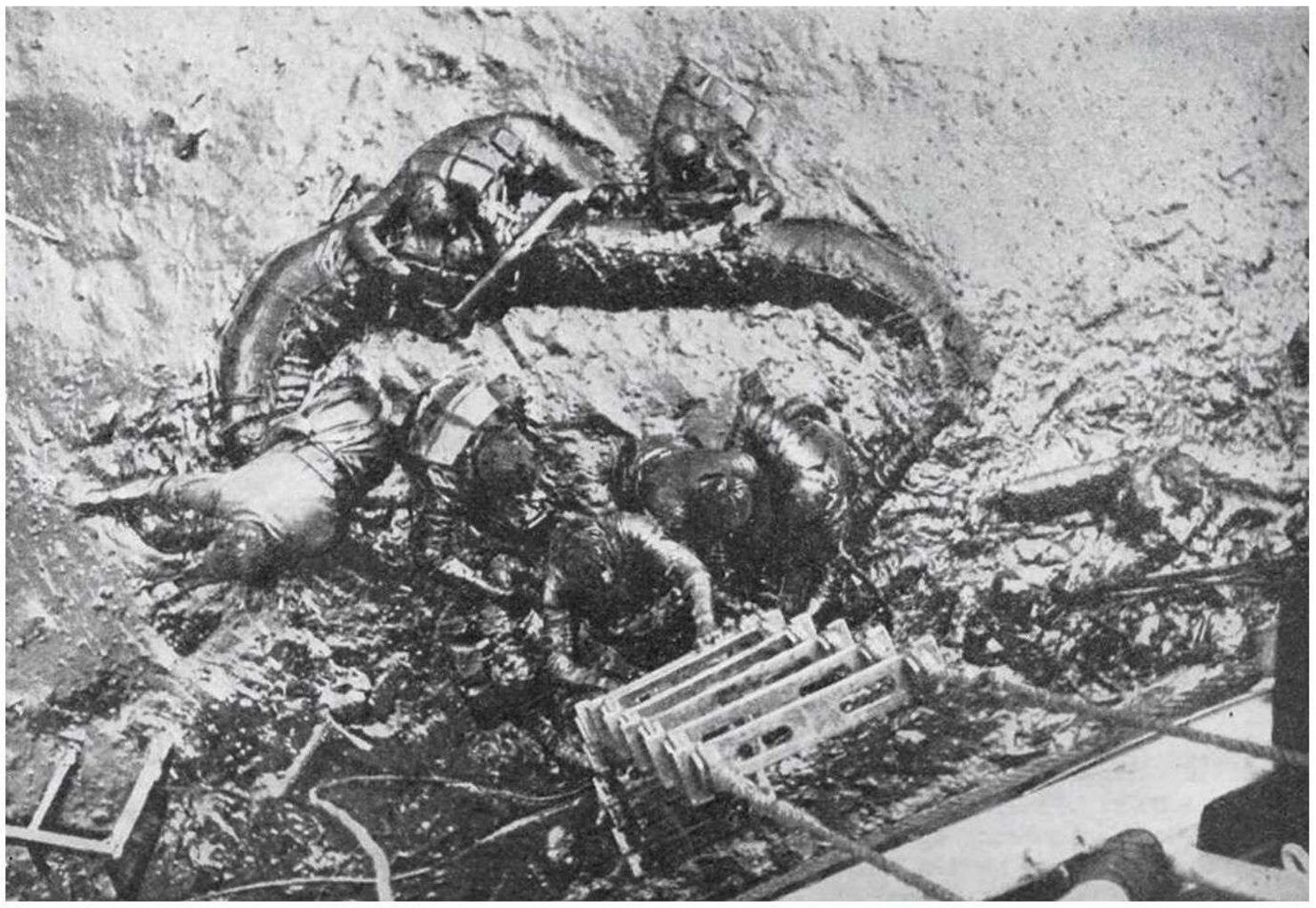

Surface tension Oil-covered British survivors are hauled out of the water after their ship, HMS *Glowworm*, was sunk by the cruiser *Admiral Hipper*, with heavy loss of life. In its final moments, the *Glowworm* rammed its aggressor, causing significant damage

Spent force German pilots in northern France. The Luftwaffe alone couldn't have destroyed the Royal Navy during an invasion of Britain, argues Nick Hewitt

24,000 troops in Norway would have been ridiculous. And so, once more, the decision was taken to evacuate.

By 6 June, troop ships had taken off 15,000 troops, and the first group was on its way home. The following day, HMS *Devonshire* evacuated Norway's government and king from Tromsø, further north. Finally, on the 8th, the RAF contingent left, the pilots skilfully landing their aircraft on HMS *Glorious*, despite being entirely untrained in deck landings, and the carrier headed home. It never made it. Its deck cluttered with RAF fighters, *Glorious* was almost defenceless, and on being found by *Scharnhorst* and *Gneisenau*, was sunk with the loss of around 1,500 lives.

Britain's vital victory

The sinking of *Glorious* was the final act of the battle of Norway – and a grim one for all that. But it couldn't mask what was obvious to everyone: the battle had been a chastening experience for the Kriegsmarine. In deploying most of his navy to Norway, Adolf Hitler had allowed the Royal Navy and its allies to score a vital victory.

Grand Admiral Raeder, with Hitler's blessing, had planned for a war in 1946, writing later that the tiny fleet was so ill-prepared in 1939 that "it could do little more than show that it knew how to die valiantly". In Norway, it was eviscerated. Its only two modern capital ships, *Scharnhorst* and *Gneisenau*, were torpedoed, and the pocket battleship *Lützow* was seriously damaged, leaving her sister *Admiral Scheer* as Germany's only big-gun ship. The Germans also lost three modern cruisers (out of eight) and half their destroyer force.

The rewards for Great Britain were immediately apparent – first during the evacuation from Dunkirk, which the Kriegsmarine failed to impede, and then when naval weakness became perhaps the single determining factor undermining proposals for the invasion of England.

When the German army proposed a broad invasion front, stretching from Lyme Bay in the west to Ramsgate in the east, the Kriegsmarine rejected it, arguing that it could only defend the invasion fleet if it was restricted to a narrow front, and the shortest possible route, across the Strait of Dover. Even then, strong coastal gun batteries and control of the air were a prerequisite, and for all the hyperbole, the evidence indicates that the Luftwaffe alone could not have hoped to defeat the Royal Navy in 1940.

The Royal Navy's defining purpose was to defend the United Kingdom, alongside which all other tasks paled into insignificance. At the start of the war it boasted 15 battleships and battlecruisers, 7 aircraft carriers, 66 cruisers, 184 destroyers and 60 submarines, with more under construction. Despite serious losses sustained in Norway and elsewhere, much of this force remained intact. The British could simply endure far higher losses than the Germans.

Even if the most modern ships were initially kept out of range of the Luftwaffe in the event of a German invasion after an RAF defeat in the Battle of Britain, this would still have left hundreds of 1914–18 vintage warships, which could have been thrown into the defence. And even if the Luftwaffe had sunk half of them, enough would have survived to massacre the motley array of improvised ferries and converted Rhine barges in which the Germans hoped to cross the Channel (especially at night, when German dive bombers could not operate). The evidence suggests, however, that the Luftwaffe would have struggled to achieve this ambitious level of destruction.

German bomber crews had been trained to act as precision flying artillery to support the army. Sinking ships that were manoeuvring fast in open water was a different skill, particularly if they were shooting back, and it was a skill the Luftwaffe had not mastered in 1940. To take one example: on the first day of the Norway invasion, nearly 100 German bombers attacked five British cruisers and seven destroyers steaming without air cover. They sank just one destroyer, HMS *Gurkha*, after she became detached from the main force. Based on this and similar incidents, it is without question that enough British warships would have survived to destroy the invasion force, regardless of whether the Germans controlled the air.

Grand Admiral Raeder confirmed this on 19 July, when he wrote to Hitler explaining: "The task allotted to the navy [in the invasion] is out of all proportion to the navy's strength." In doing so, he was effectively admitting that, during April and May 1940, the Royal Navy had saved Britain. **H**

Nick Hewitt is an author and naval historian. He is head of collections and research at the National Museum of the Royal Navy

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THE GREAT EVACUATION

In May 1940, hundreds of thousands of Allied troops were stranded in France, faced with the ferocious onslaught of the German blitzkrieg. Their rescue would involve luck, strategic genius and the last-ditch intervention of an impromptu civilian flotilla. **Tim Benbow** revisits 'the miracle of Dunkirk'

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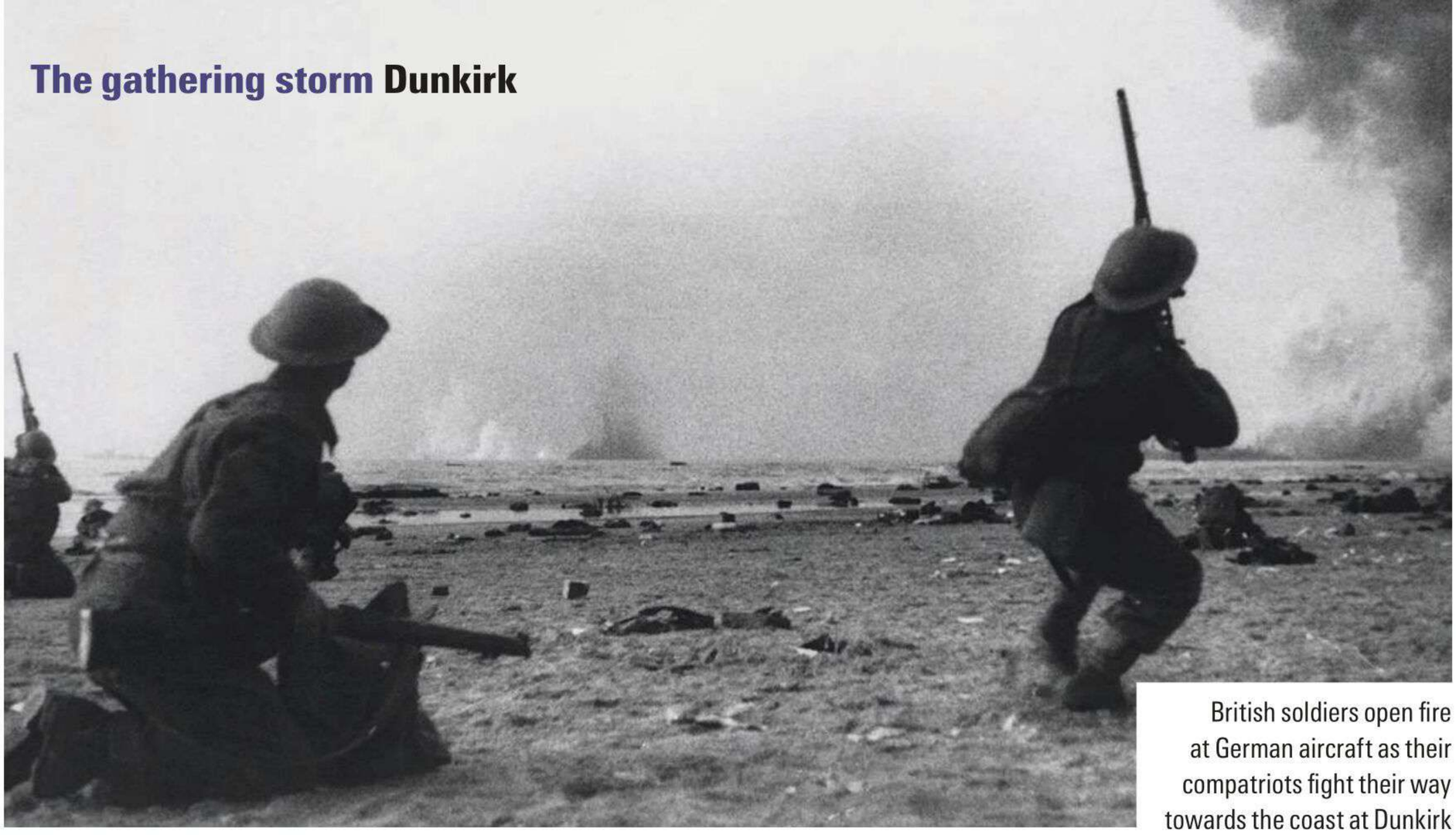
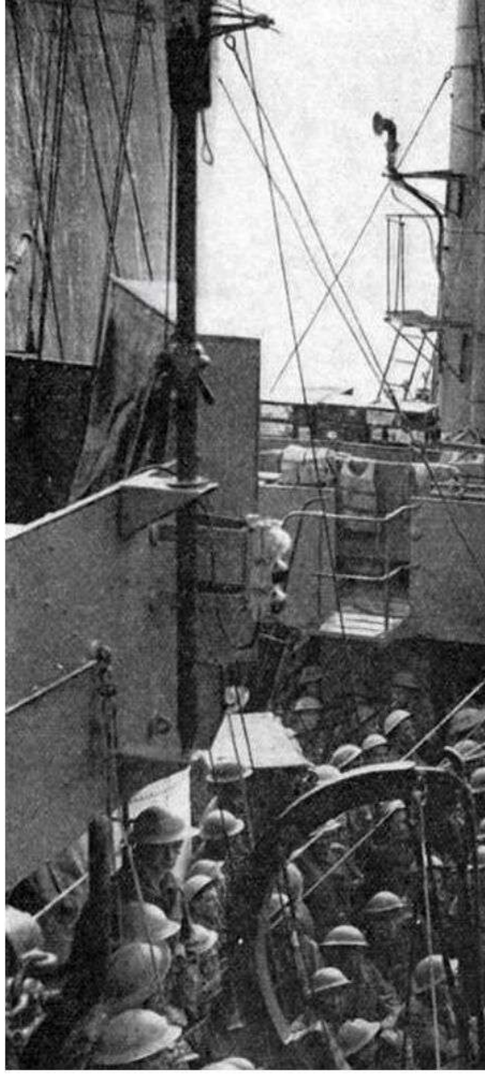
Charles Cundall's painting *The Withdrawal from Dunkirk, June 1940* shows troops crowding the beaches to the east of the port, awaiting passage across the Channel. In the background, Dunkirk burns as the German army closes in



British soldiers open fire at German aircraft as their compatriots fight their way towards the coast at Dunkirk



"God help the BEF... I cannot see that we have much hope of getting any of the BEF out." So wrote General Edmund Ironside, chief of the Imperial General Staff, in his diary of 21 and 23 May 1940. Ironside's words reflected a wave of pessimism washing over the British government as it contemplated the dire situation of the British Expeditionary Force in France. If an evacuation should prove necessary, the consensus was that it would last just two days, with as few as 45,000 men being rescued, before the bridgehead was overrun by the Germans.

This bleak assessment was far removed from the optimism with which the BEF had been deployed to France nine months earlier. The British and French were confident they could repel the long-anticipated German offensive in the west. And when it began on 10 May, it took just the form that the Allies had expected, with an attack on the Netherlands and Belgium.

The BEF and the French armies in the north carried out their plan to move forward to meet the Germans – but they were advancing into a trap. The Germans' northern thrust was intended to fix the Allies in place, making them vulnerable to the main advance to the south, through the Ardennes. The French had seen this extensively forested area as impassable for tanks and so had only lightly defended it. It was a terrible mistake. Supported by air power, the panzers crossed the river Meuse near Sedan on 14 May, broke through the defences and dashed for the Channel coast, hoping to encircle the Allied armies fighting there.

Just as the Germans intended, the rapid advance of their tanks spread confusion and panic, shattering the will of the French high command as much as it overran their forces.

The British government urged Lord Gort, commander of the BEF, to extricate himself from the closing trap by joining the French in an attempt to advance to the south. Yet the various bold schemes for counterattacks to stem the German tide lagged way behind the rapid pace of events on the ground and were quite beyond the capacity of the Allied forces.

Gort was better aware than London, and even Paris, of the true state of affairs: to his north, the Dutch had surrendered and the Belgians would soon follow suit; to the south, the German tanks were cutting off the hard-pressed British and French forces from supply and reinforcement.

Gort therefore took the vital decision to fall back on the Channel ports. This was no easy task, involving a fighting retreat through a rapidly closing corridor, under constant air attack. RAF fighters were at the edge of their range and beyond the radar coverage that would be so vital later in the summer. But although outnumbered, they were able, for the first time in the campaign, to prevent the Luftwaffe from having things all its own way.

On 19 May, command of any large-scale evacuation that might be required was given to Vice Admiral Bertram Ramsay, whose headquarters was in tunnels beneath Dover Castle – the operation took its name from the dynamo room from which it would be directed. Ramsay began to make preparations, gathering warships from other commands around the country. He also registered privately owned vessels that might be pressed into service – these would become the celebrated 'little ships'.

Stalling tactics

As the Germans continued to advance, it became clear that the only viable port for the BEF would be Dunkirk. It was far from ideal, with tides and sandbanks making navigation challenging. Inland from the port, however, the terrain was favourable to defence, with marshes and canals forming natural defensive lines. The British and French forces were given further respite by the German army's decision to order a pause in the advance of its tanks – a hugely valuable delay that gifted the Allies two days to build a perimeter.

The German advance was further delayed by British troops holding the port of Boulogne as long as they could, finally being evacuated by the Royal Navy in an operation that saw destroyers exchanging fire with German tanks – an action in which three of the destroyers' captains were killed. The navy also prepared to evacuate the British forces holding Calais but Churchill ordered this garrison to resist to the end, both to firm up Allied solidarity and also to delay the enemy advance a little longer.

At 6.57pm on Sunday 26 May, Ramsay received the order: "Begin Operation Dynamo." The evacuation was entirely improvised and could have ended at any time with the fall of Dunkirk, but with ships and naval parties, to provide control, already on their way to France, the plan he had started to formulate went into action.

The following day, Captain Bill Tennant, appointed by Ramsay as senior naval officer for Dunkirk, arrived at his new command to discover that the main port was quite unusable due to heavy bombing. He therefore looked to the many miles of sandy beaches stretching from the east of the town up to and across the Belgian border. Divided into three sectors (Malo-les-Bains, Bray-Dunes and La Panne), these offered plenty of space for the retreating troops to gather. But their gentle slope and the shallow water offshore prevented large vessels coming in close to load men aboard.

Initially, the warships used their own small boats to lift troops off the beaches, but many of these were wrecked by men who

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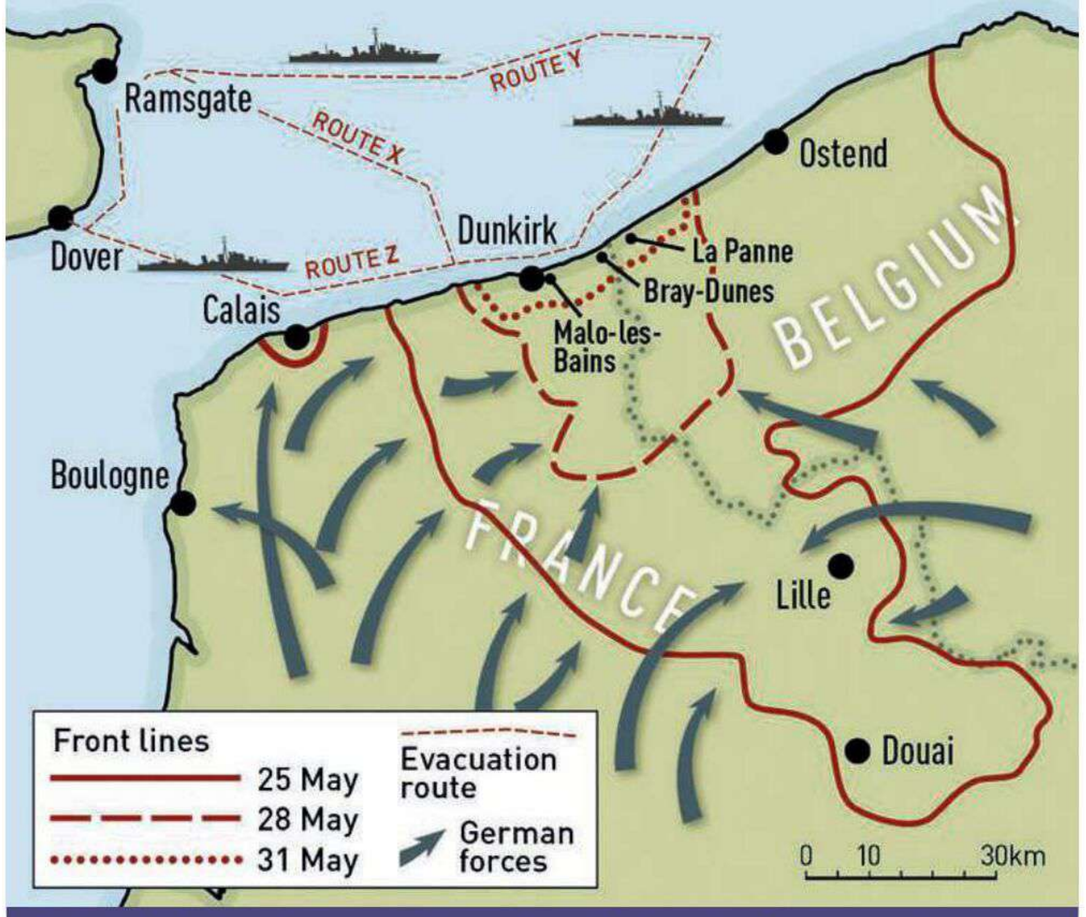
Some of the 338,226 troops rescued over nine days. "The relief is stupendous and the results beyond belief," wrote Vice Admiral Ramsay in the wake of the operation



As their bridgehead contracted in the face of advancing German armies, Allied troops were evacuated from Dunkirk's outer harbour and the beaches snaking east across the Belgian border

were inexperienced in their use. This was where the famous 'little ships' became so important – not so much in carrying men all the way home, but in picking them up from the beaches and carrying them out to the larger ships waiting in deeper water offshore.

As Operation Dynamo picked up momentum, huge numbers of soldiers gathered on the beaches or among the dunes behind them, forming lines when boats became available, then wading out to board them.

"As far as the eye could see it stretched away into the distance, the firm sand of the shore merging farther back into dunes where the surface was no more than a thin yellow powder interspersed with parched tussocks of coarse grass," wrote Second Lieutenant Peter Hadley. "And covering all this vast expanse, like some mighty ant heap upturned by a giant's foot, were the remains of the British Expeditionary Force."

Tortuously slow

The beaches were critical to the evacuation, with one in three of all soldiers rescued in the operation picked up from the strips of sand snaking their way along the coast to the east of Dunkirk. But embarkation was painfully slow and, to make matters worse, the pocket around the BEF was steadily contracting before the German advance.

Bill Tennant was well aware that taking off large numbers of men demanded proper harbour facilities, but the German bombing had knocked these out. So he turned his attention to the outer harbour, where there were two breakwaters: the West Mole, from the oil terminal, and the East Mole, from the town. The latter was about a mile long, made from concrete piles with a wooden walkway on top. It had not been designed for mooring large ships but Tennant tested it out, ordering a liner to come alongside.

This brilliant improvisation worked: the East Mole was fragile and vulnerable to air attack, as were all ships moored next to it, but it allowed large numbers of men to be embarked directly on to ships that could carry them home. Around 70 per cent of those evacuated at Dunkirk embarked from the harbour, most from the East Mole.

"BACK AT HOME THEY TREATED US AS HEROES. YOU'D HAVE THOUGHT WE'D WON A BATTLE INSTEAD OF LOST ONE"

During the operation, the Territorial Army chaplain Reverend Ted Brabyn observed: "Never was a prayer more heartfelt than the one: 'Thank God we've got a navy.'"

Brabyn's gratitude was directed not just at the vessels carrying the troops back to England but also at the naval parties charged with organising the evacuation itself. At the East Mole, that task was overseen by the Canadian commander Jack Clouston. As piermaster, he helped bring forward the waiting troops, hurrying them along the mole to board waiting vessels. It was a critical job, but one that would cost Clouston his life. On Sunday 2 June, he returned to Dover to help organise the planned last lift and then headed back to Dunkirk. En route, the motor torpedo boat carrying him was sunk and, exhausted after several days of continuous work, Clouston was unable to make it to the ships picking up survivors. He slipped away and drowned.

As the organisation of Operation Dynamo improved and more vessels arrived, the numbers carried off steadily climbed. While just 7,600 troops were evacuated on 27 May, two days later, 47,300 were saved. And still the number kept climbing: 53,800 on 30 May and 68,000 on 31 May, before dipping slightly to 64,400 on 1 June.

By Sunday 2 June, Tennant was able to send the signal: "BEF evacuated." Yet the desire not to abandon the French soldiers who had held the perimeter so staunchly led to the exhausted crews being asked to go in again and again, for three more nights, rescuing another 79,000 troops.

Operation Dynamo ended on Tuesday 4 June. The following day, Vice Admiral Ramsay wrote to his wife: "All is done now and the task is behind. The relief is stupendous and the results beyond belief." He was right. An operation that was expected to be over in two days had lasted nine. During that time, 338,226 troops had been saved from the clutches of the Wehrmacht.

While ships from France, Belgium, the Netherlands, Norway and Poland participated, over 90 per cent of those rescued were carried in British ships, the great majority in naval vessels or civilian boats crewed by the navy.

As Ted Brabyn acknowledged, the Royal Navy was critical to the miracle of Dunkirk, but its assistance came at a price, including the loss of six invaluable destroyers. The navy was hurt, but the army had been saved – a fact not lost on Britons following the drama unfolding on the Normandy coast.

"Back at home I think they realised that we'd been beaten, and we'd had a real hammering," observed Signaller Alfred Baldwin, Royal Artillery, "but nevertheless, they treated us as heroes. You'd have thought we'd won a battle instead of lost one."

The campaign to save France had indeed been a disaster for the Allies, with the Low Countries and France herself knocked out of the war. Yet the brilliance of Dynamo meant that Germany was denied a complete victory, and Britain would fight on.

ALAMY/MAP: PAUL HEWITT-BATTLEFIELD DESIGN

Soldiers climb a ladder to safety at Dunkirk. Troops were ferried from the shore on cockle boats, yachts, rubbish barges and fire tenders as well as Royal Navy warships

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DUNKIRK: SIX BIG QUESTIONS ON A REMARKABLE RESCUE MISSION

1 Did Hitler let the British get away?

The German order of 23 May to halt the advancing panzers has led to a claim that Hitler deliberately allowed the British to escape – the idea being that avoiding humiliation would make them more willing to accept a peace deal that would free him to turn his attention to the east. This is utter nonsense.

First, it does not make sense. Capturing most of the trained strength of the British Army would have provided a weighty bargaining chip. Second, the claim does not reflect what happened: only one of the two advancing German armies halted (and only for two days, pushing on when it became clear that an evacuation might be under way). The other pressed on and the Luftwaffe continued to attack. If this was an attempt to allow the BEF to escape, it was distinctly half-hearted.

Third, there is a perfectly adequate explanation for the halt order. The German armoured forces were stretched after a long advance and needed a pause to recover, to allow infantry and supplies to catch up, and to prepare for the next stage of the campaign, pushing for Paris and fighting the large French forces to the south. Some German commanders were nervous that their progress had been too good to last, influenced by a minor British counter-attack near Arras on 21 May, which raised groundless fears that a larger Allied counter-stroke might be imminent. What's more, Hermann Göring, the commander of the Luftwaffe, insisted that his force could mop up the remnants of the encircled Allied forces.

Given the understandable assumption that their enemies were cornered with nowhere to go, why take a risk pushing on? Even the British did not believe that a large-scale evacuation was feasible, so why would the Germans?

The decision to halt was a grave error that greatly assisted the British, gifting them time to continue their withdrawal and to strengthen the defences around Dunkirk. This does not mean that it can only be explained by a conspiracy theory.

A German military column pictured in the Ardennes on 12 May 1940 during the invasion of France. Hitler's order that the panzers halt outside Dunkirk 11 days later has spawned numerous conspiracy theories

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2 Did the RAF let the army down?

Some of the troops who fought in France bitterly criticised the RAF, not least for what they saw as its lack of effort over Dunkirk. Jibes referring to the 'Royal Absent Force' stung – and were quite unjustified.

Many of the RAF's aircraft were obsolescent and, even alongside the French flying force, they were badly outnumbered by the Luftwaffe. Squadrons from Fighter Command, Bomber Command, Coastal Command and the Fleet Air Arm did what they could to resist the onslaught, suffering terrible casualties that saw entire squadrons wiped out. But their activities were often out of soldiers' sight.

The troops' wish to see friendly aircraft overhead was understandable but misconceived. Supporting aircraft might be better employed striking enemy land forces elsewhere, or intercepting their aircraft some distance from the bridgehead. There was also a need to find a balance between committing squadrons to the battle of France and keeping enough back to defend Britain.

One legitimate criticism is the charge that the RAF placed far too much emphasis on strategic bombing. At this stage, this was far short of achieving what its proponents claimed, and meant that other areas (particularly aircraft cooperating with the army and navy) were short of resources.

However, despatches written by Lord Gort and Bertram Ramsay – high-ranking officers in the army and navy respectively, who were in a better position to appreciate the full picture than the infantry being bombed at Dunkirk – are striking. Both paid tribute to the sacrifice of the RAF, without which the evacuation would have been impossible.

3

While overseeing the Dunkirk evacuation, Vice Admiral Sir Bertram Ramsay combined mastery of detail with a skill in delegation

Lord Gort, the clear-sighted commander of the BEF, salutes a sentry outside the War Office, 1940

Three aircraft of No 218 RAF Squadron in flight over northern France. The RAF was badly outnumbered by the Luftwaffe during the battle of France

Who were the brains behind the operation?

Two men stand out. General Lord Gort, commander of the British Expeditionary Force, deserves enormous credit for his calmness in a confusing and disastrous situation, in which he displayed a remarkable ability to grasp what was happening. He turned down a series of flawed proposals for counterattacks, which his French allies were quite unable to carry out, in favour of pulling back towards the coast. Then, when news came of the imminent collapse of Belgium, he took swift action to redeploy his forces, filling a gap through which the Germans would otherwise have poured.

Bernard Montgomery, a division commander at Dunkirk and future hero of north Africa, was not generally free with praise for others. But in his memoir, he wrote of Gort: "He was a man who did not see very far, but as far as he did see he saw very clearly... It was because he saw very clearly, if only for a limited distance, that we all got away at Dunkirk."

The other key individual was Bertram Ramsay. Despite being on the retired list, at the start of the war Ramsay was appointed Vice Admiral Dover, a critical command given its position on the English Channel. At Dunkirk, Ramsay proved the merits of that appointment, overseeing, with consummate professionalism, what the Oxford Dictionary of National Biography calls "the largest seaborne evacuation ever attempted".

Ramsay showed an ability to put together and lead a team in the most trying circumstances, mastering detail yet also able to delegate. Later in the war, he led the planning for the D-Day landings. Having rescued the army from the continent, it was appropriate that he masterminded its return four years later.

4 How important were the 'little ships'?

The 'little ships' are central to how Dunkirk is remembered and portrayed. They were the more than 700 privately owned vessels that participated in the evacuation, including motor boats, sailing ships and vessels towed across the Channel.

They represented the full range of seafaring activities of the nation, including fishing trawlers, cockle boats, yachts, lifeboats, paddle ferries, pleasure cruisers, a fire tender, rubbish barges and vessels owned by the Pickfords removals company. The names tell a story of their own: *Lord Collingwood* and *Lord St Vincent* served alongside *Yorkshire Lass*, *Count Dracula* and *Dumpling*.

Their limited capacity for passengers was outweighed by the priceless advantage of a shallow draft, which allowed them to go close inshore to pick up the waiting soldiers.

The image of civilians answering the call to help save the beleaguered army is undeniably a compelling one. It was subsequently exaggerated, just like the contribution of 'the Few' in the Battle of Britain. Yet, just like that later example, there was more than a kernel of truth to the story.

The little ships' contribution needs to be put in context. They carried few men all the way home, rather being used to ferry them out to the larger ships. Many were manned by civilian crews, yet there was also a good sprinkling of naval or naval reserve personnel.

But Churchill's 'mosquito armada' did play an important role. Many men would not have got home without them – and they paid a high price, coming under constant attack from the Luftwaffe and having to brave mines, fast tides, fog and waters cluttered with ever more wrecks. More than 100 were lost, including many that were unidentified. The little ships certainly deserve their place in history.

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Three of the 700-strong armada of 'little ships' that rescued soldiers from the shores of France. More than 100 were lost in the operation

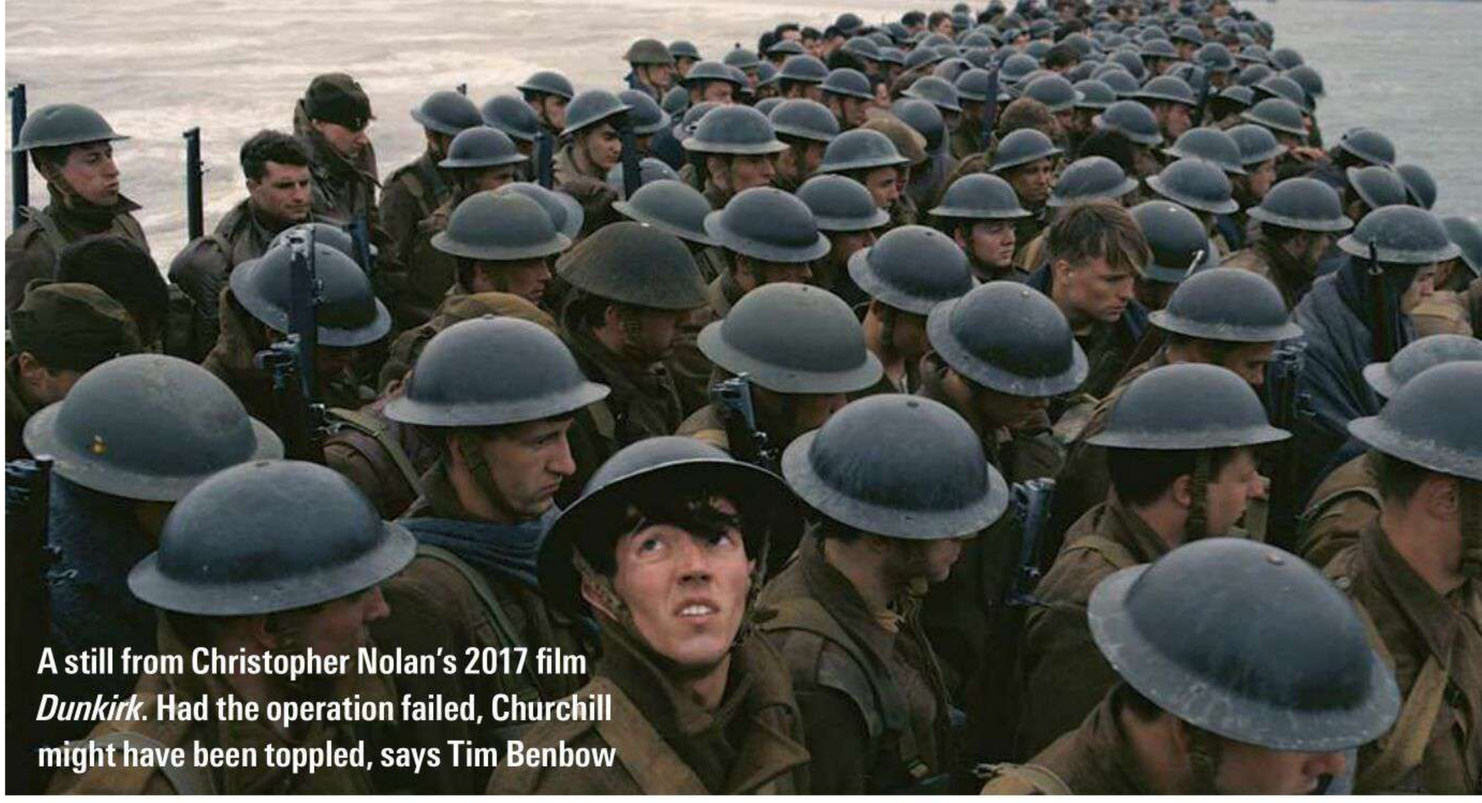
5 Was Dunkirk really such a miracle?

The events of Dunkirk are often described as miraculous. While the fine weather was a remarkable stroke of luck – especially the calm seas, without which evacuation from the beaches would have been impossible – the explanation is for the most part more mundane. The Germans made a major mistake in pausing their advance, thereby easing the pressure on the bridgehead. While the Royal Air Force was not able to provide air superiority, it did enough to prevent the Luftwaffe from making the operation impossible. Ship losses were high but not sufficient to stop the evacuation.

The BEF and the French army deserve far more credit than they usually get, for the determined and disciplined way they fought their way out of the closing trap – while short of food and ammunition, against an enemy with air supremacy, and through roads choked with refugees – and then defended the ever-shrinking perimeter long enough for the evacuation to take place. Most of all, though, the operation depended on the effective use of sea power.

The Royal Navy had inflicted heavy losses on its German counterpart during the Norway campaign a few months earlier (see page 15). This prevented the Kriegsmarine from interfering with Operation Dynamo and also denied Germany any real option for invasion in late 1940. The Royal Navy, with great assistance from the merchant navy, then proved able to improvise a successful evacuation, despite near-constant air attack.

Civilian and naval crews (albeit far more of the latter) went back time and again, in difficult circumstances, to bring the defeated army home to fight another day.



A still from Christopher Nolan's 2017 film *Dunkirk*. Had the operation failed, Churchill might have been toppled, says Tim Benbow

6 If the evacuation had failed, would Britain have lost the war?

While the outcome of Operation Dynamo was as great a relief to the government as it was a boost to popular morale, what was its real significance? Some historians have argued that its impact has been exaggerated – that Britain would have fought on regardless. This is plausible: the RAF would have been no less ready to fight the Battle of Britain, while the Royal Navy would have been equally well placed to prevent any German attempt at invasion.

But Britain's situation in the summer of 1940 was dire. The defeat and occupation of Norway, Denmark, the Netherlands and Belgium were followed by the collapse of France, Britain's main ally. Germany was effectively allied with the Soviet Union, Italy now joined their side in the war, and any US entry was a long way off. Worse still, Germany controlled the coastlines of France and Norway, putting it in a far better position to wage war at sea. Britain's survival was in genuine doubt.

But imagine if Britain had seen another 200,000 troops taken prisoner, losing the bulk of its trained army and the nucleus for its later expansion. This would have represented another heavy blow to its ability – and, crucially, willingness – to face the difficult years to come. At best, the successful campaigns in north Africa and the Mediterranean would have been far more difficult to fight, allowing Germany to invade the Soviet Union earlier, with better prospects for success. Material support from the US would have been slower to come – if it came at all.

We've also got to consider that, while Churchill was resolute about fighting on, his position was far from unassailable. It is conceivable that, if Dunkirk had ended in disaster, his administration could have been toppled and replaced by a government willing to seek the best peace it could negotiate. Dunkirk therefore has to be seen as one of the key turning points of the war. **H**

Tim Benbow is reader in strategic studies at King's College London. He is editor of *Operation Dynamo: The Evacuation from Dunkirk, May–June 1940* (Helion, 2016)

Destroyers with an RAF escort return to Britain from northern France

ALAMY/ GETTY IMAGES-POPPERFOTO

A fleet of small boats is towed up the Thames after taking part in Operation Dynamo, June 1940

GETTY IMAGES

EYE OPENER

Watching for trouble

Anti-aircraft gunners perch atop a Maunsell army fort in the Thames estuary. Named after Guy Maunsell, the civil engineer who designed them, these unusual structures were erected in 1941–43 to prevent German planes from laying mines in British shipping lanes and carrying out bombing raids on land. Each fort was typically made up of seven towers (including one control tower and one searchlight tower), connected by a series of catwalks.

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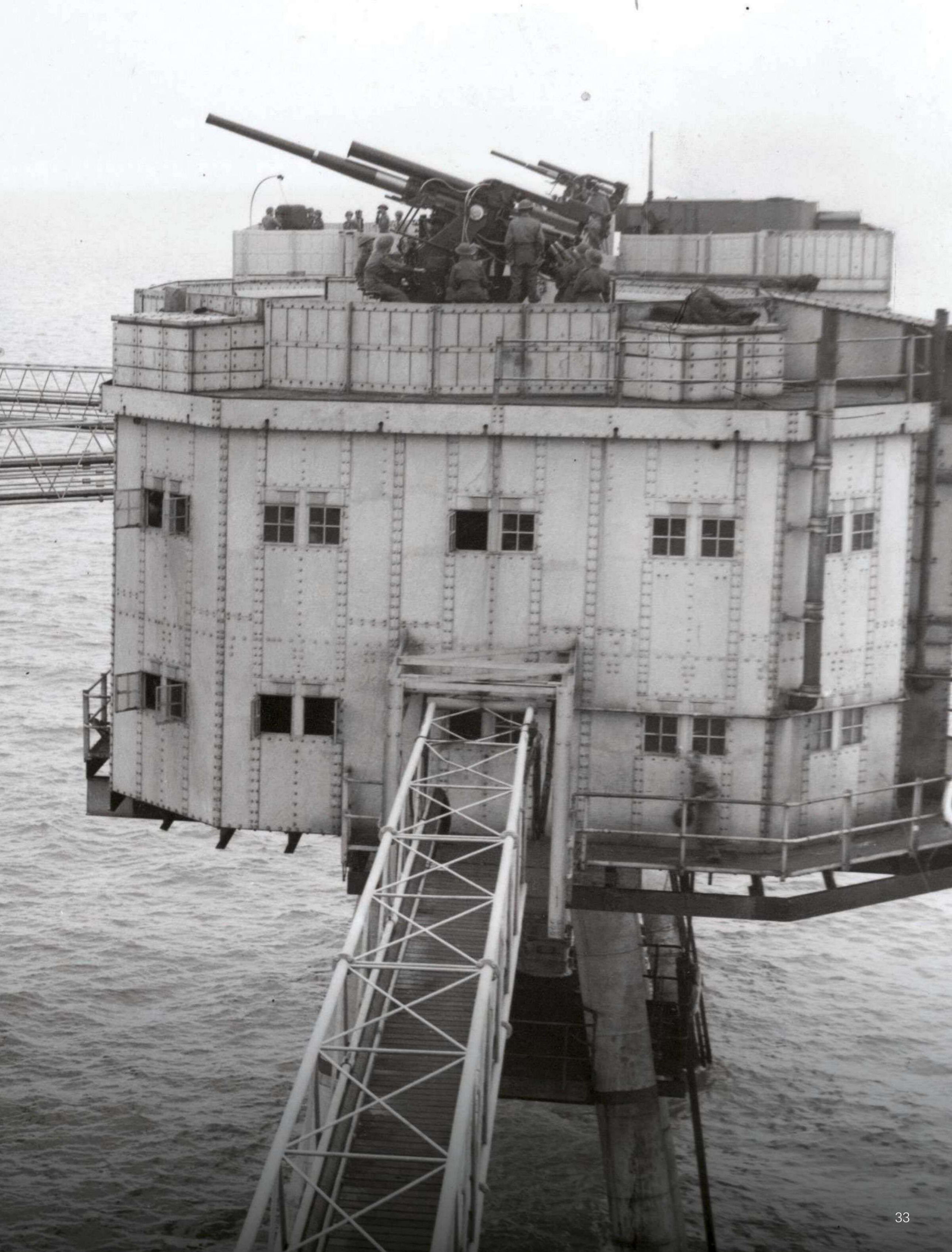
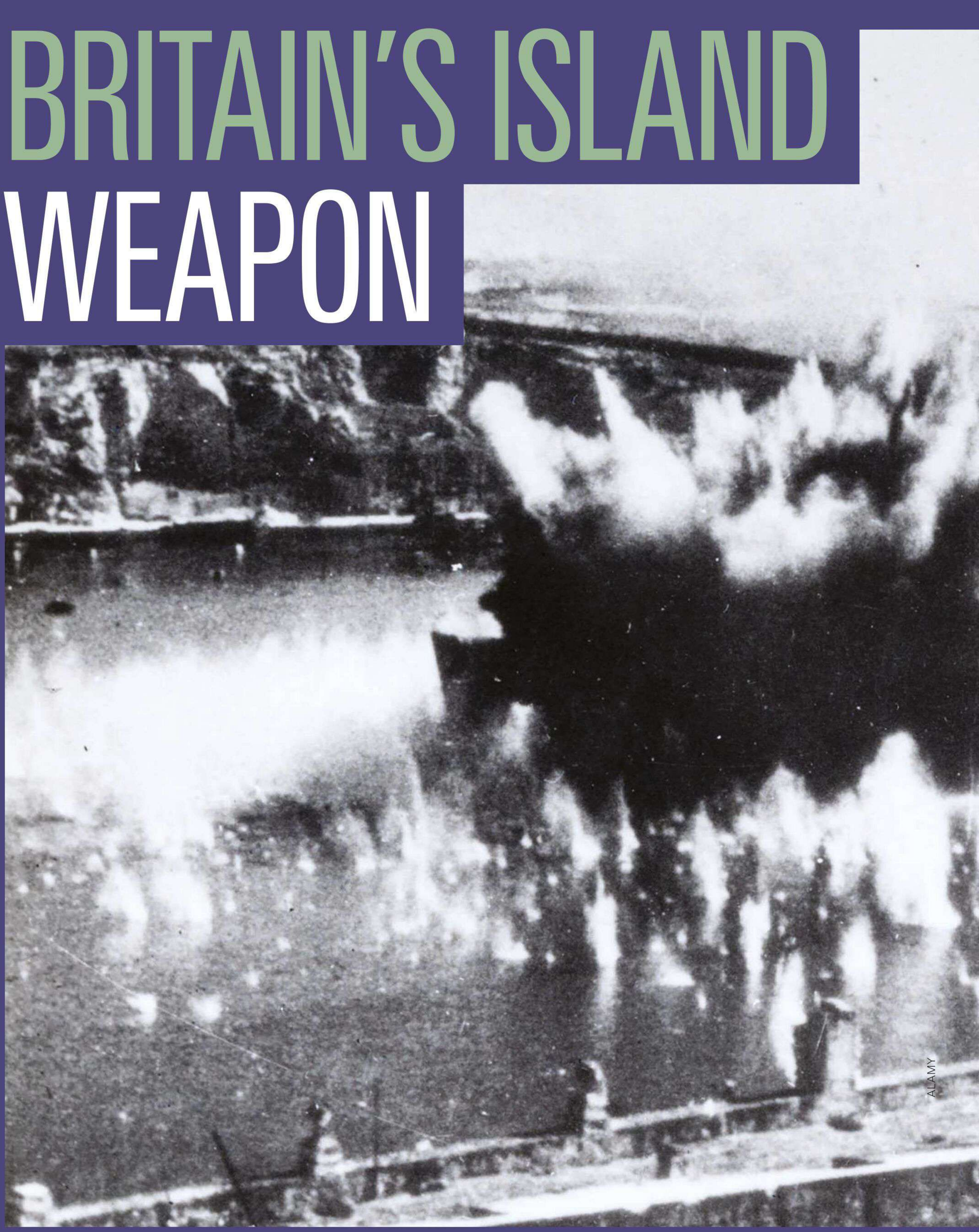
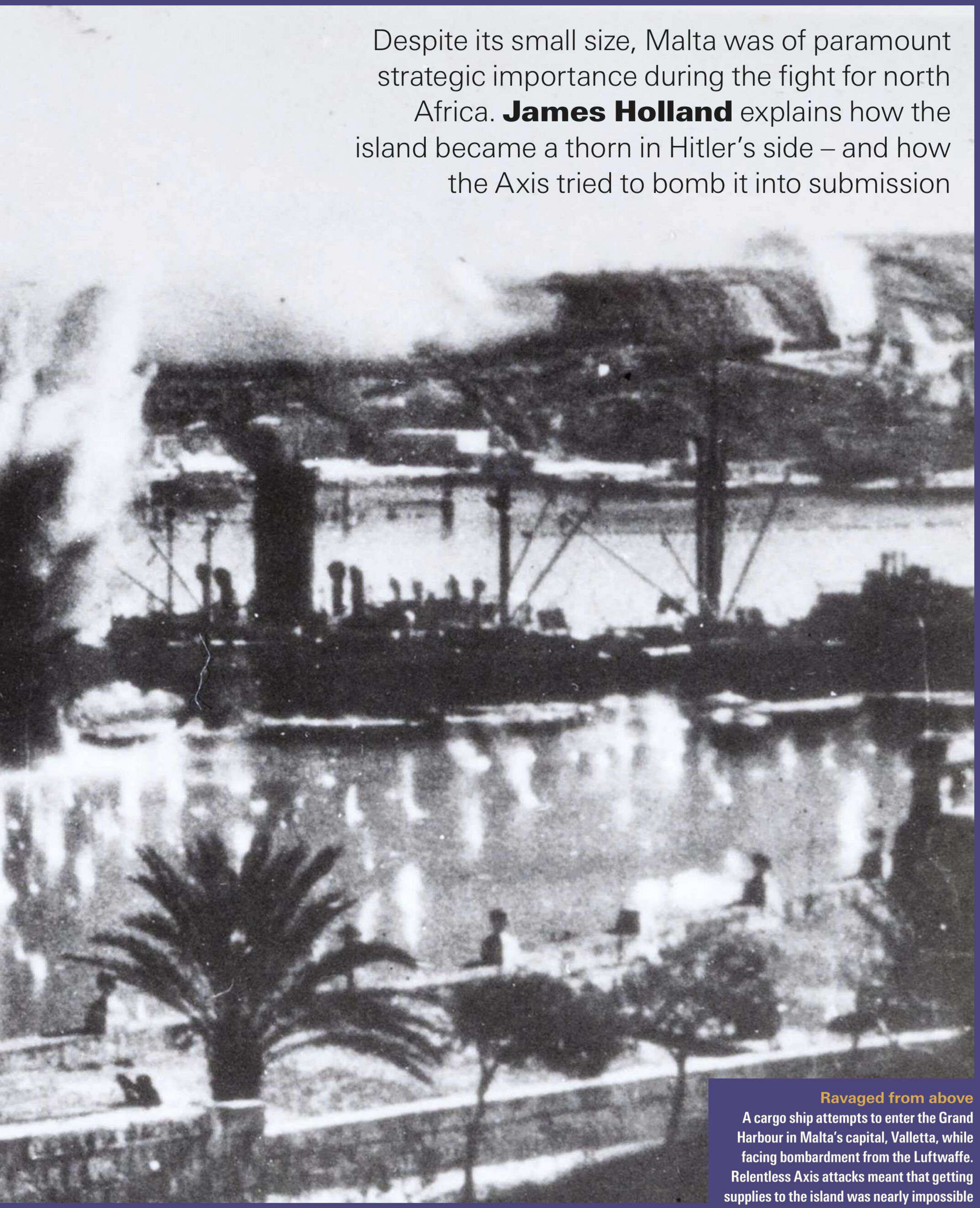


BRITAIN'S ISLAND WEAPON

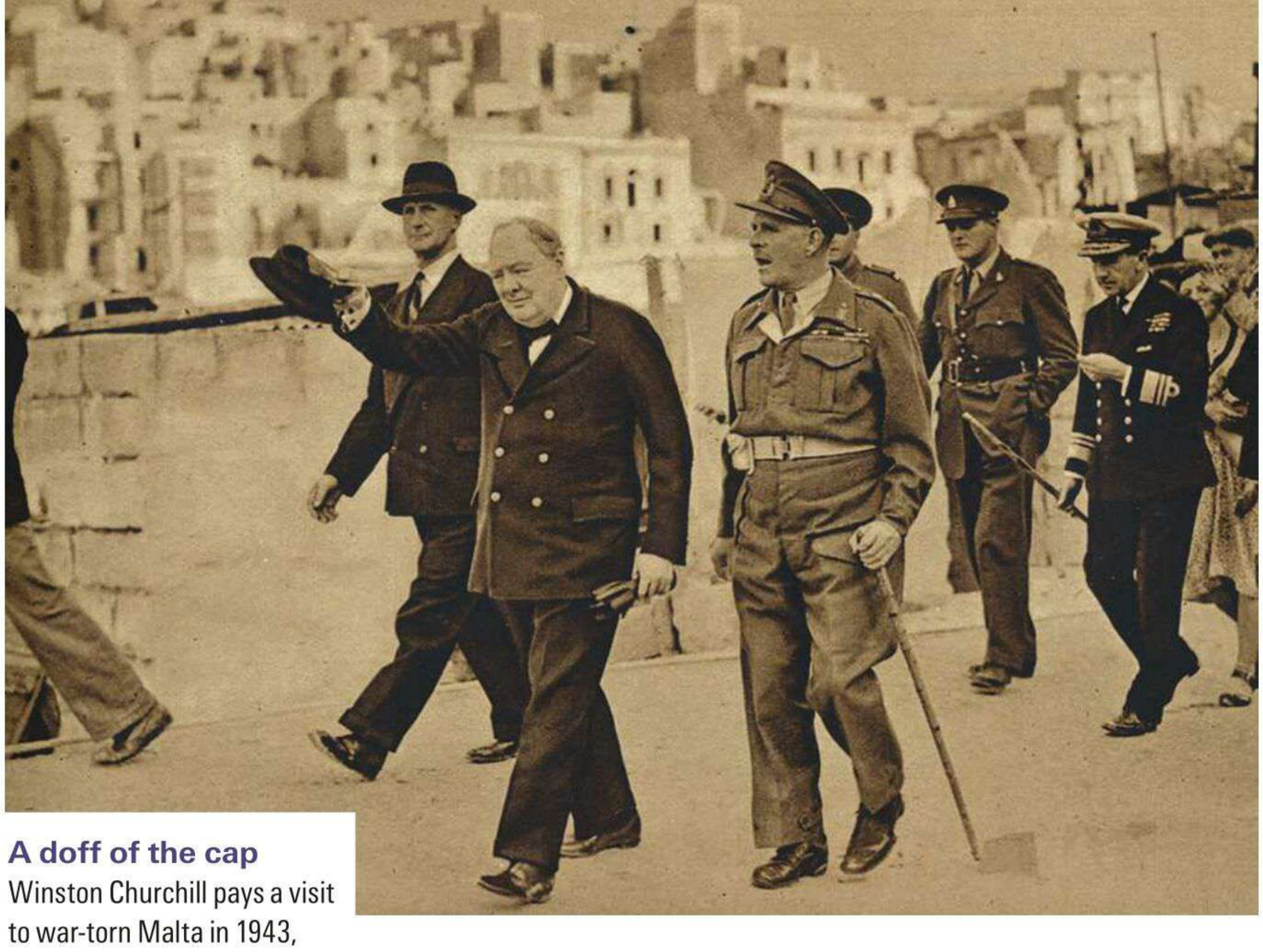


ALAMY

Despite its small size, Malta was of paramount strategic importance during the fight for north Africa. **James Holland** explains how the island became a thorn in Hitler's side – and how the Axis tried to bomb it into submission



Ravaged from above
A cargo ship attempts to enter the Grand Harbour in Malta's capital, Valletta, while facing bombardment from the Luftwaffe. Relentless Axis attacks meant that getting supplies to the island was nearly impossible



A doff of the cap Winston Churchill pays a visit to war-torn Malta in 1943, accompanied by the island's new governor, Lord Gort

Dusk, Saturday, 24 May 1941. Some 40 miles east of the southern tip of Sicily, the crew of a lone British submarine, *Upholder*, were preparing to attack an Axis convoy of four troop ships and five destroyers. The odds were stacked against them: there was quite a swell, which made both observation and balance difficult, they had just two torpedoes left, and their Asdic – or sonar – was out of order. Worse still, if they did attack, the chances of subsequently being caught by the destroyers was high.

Despite these handicaps, *Upholder*'s 29-year-old commanding officer, Lieutenant Commander Malcolm David Wanklyn, decided to continue with the attack. His plan was to make the most of the fading light and get as close to the ships as possible. So, despite the sea sluicing against the periscope, they manoeuvred towards the convoy steaming towards them. *Upholder* was now so close, she was almost rammed by one of the close-escort destroyers. With the second-in-command, Lieutenant Michael 'Tubby' Crawford, frantically trying to keep the submarine steady, and with Wanklyn preparing to fire, another of the destroyers suddenly loomed in front of the periscope. Rapidly diving, they avoided collision by a hair's breadth.

They were now inside the destroyer screen, a decidedly unhealthy place to be, but despite the danger, they quickly pressed home the attack. No sooner had the Allied soldiers fired point-blank at the largest troop ship than the track was spotted and the alarm signalled. It was too late for the Italian ship; struck by a massive explosion, it began to sink rapidly.

Immediately diving, the crew of *Upholder* were now tasked with a hair-raising ordeal. Avoiding the depth charges of five determined destroyers steaming after them at 10 times their own speed required nerves of steel. In fact, they were depth-charged 37 times over the next 20 minutes, with the submarine regularly shaking and rolling with the blasts. "It was," Crawford later admitted, "a little hairy".

But somehow, they avoided their attackers, and when they finally surfaced once more several hours later, the sea was clear. Only an oily smell hung on the breeze – all that remained of the 18,000-ton SS *Conte Rosso*. Of the 2,729 troops on board, 1,300 had perished with the ship.

Upholder now set sail for Malta. *Conte Rosso* was the third enemy vessel they had sunk during that patrol, and Wanklyn was later awarded the Victoria Cross for this action. A year on, when she left Malta for the last time, *Upholder* had accounted for some 119,000 tons of enemy shipping.

MORE BOMBS FELL ON MALTA THAN ON LONDON DURING THE ENTIRE BLITZ. THE ISLAND BECAME THE MOST BOMBED PLACE ON EARTH

A formidable target

It was this harrying of Axis shipping throughout much of the north African campaign that made Malta a vital outpost. *Upholder* was part of the Malta-based 10th Submarine Flotilla. Although never more than 14 in number, these submarines, along with RAF bombers, two Fleet Air Arm squadrons, and the Malta-based cruiser and destroyers of Force K, decimated Axis supply lines in the region.

Malta is a small island – smaller than the Isle of Wight – but it lies at the very heart of the Mediterranean and is just 60 miles south of Sicily. This made the outcrop a key strategic asset for the British, but being 840 miles from Alexandria and over 900 miles from Gibraltar, it was also isolated and vulnerable. Before the war, both the RAF and army believed Malta was untenable, and only the Royal Navy, who since Nelson's day had used it as the headquarters of the Mediterranean Fleet, believed it worth holding on to. The navy's view regarding the island held sway, but the Mediterranean Fleet was transferred to Alexandria before Italy entered the war in June 1940.

At that moment, with France almost beaten and Britain facing the threat of invasion, few believed Malta could hold out. Certainly, in June 1940, the island's defences were minimal to say the least, with woefully few guns and just a handful of old biplanes.

Fortunately for the British, Italy's war leaders regarded a seaborne invasion as unfeasible at that time, and her navy and air force lacked the will or determination to press the attack. As Britain held firm against the Luftwaffe at home, so the new prime minister, Winston Churchill, urged for Malta's reinforcement. By the end of 1940, anti-aircraft guns and Hurricane fighter planes had strengthened the island's defences considerably. Italy had missed her chance.

The Luftwaffe briefly joined the Regia Aeronautica, the Italian air force, on Sicily as Germany prepared to send troops to north Africa for the first time. Yet for much of 1941, the task of mounting attacks against the island was largely left to the Italians.

Malta in 1941 was undoubtedly a tough posting, with supplies and equipment always short and the defenders battling with the

Submarine heroes Lt Cdr Wanklyn (left) and Lt Crawford (right) helped clear the waters around Malta while serving on *Upholder*

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claustrophobia of living on a small, sun-scorched island. Yet the missed opportunity of the previous summer really came to haunt the Axis as Malta-based submarines, aircraft and ships sunk critical amounts of shipping that would have been invaluable to their campaign in north Africa.

A major problem for the Axis was that, unlike the Allies, the amount of shipping at their disposal was both finite and rapidly diminishing. *Conte Rosso* was one of the largest ships sunk in the Mediterranean; after she foundered, Axis ships became smaller and less efficient. There were no vast shipyards in Italy or Greece pumping out merchant vessels as there were in Britain, the United States and the Dominions.

Field Marshal Albert Kesselring, who in November 1941 became German commander-in-chief (south), quickly realised that logistics held the key to victory in north Africa. He also recognised that Malta's power had to be neutralised, and fast, or north Africa would be lost. So he ordered Fliegerkorps (Air Corps) II to be transferred to Sicily where, alongside the Regia Aeronautica, it launched a blitz the like of which had not been seen before. From January to April 1942, some 18,000 tonnes of bombs rained down on the island – more than on London during the entire Blitz. Malta became the most bombed place on Earth.

Rommel's fatal mistake

By the beginning of May 1942, the 10th Submarine Flotilla had been forced to leave the island, not one bomber remained capable of operations and much of the harbours lay in ruins. Hitler had authorised plans for an invasion of the island, but now, as fortunes turned in favour of Rommel and his Panzerarmee Afrika, he prevaricated, as he had so often done before. Rommel preferred reinforcing victory with an all-out dash to the Suez Canal; Kesselring pleaded for the Axis to invade Malta first. Rommel, the man of the moment, won the argument.

It was a catastrophic error. Historians have often tried to belittle Malta's role, pointing out that the island cost more to maintain than it was worth. But this is nonsense. The Allies could afford to keep the outcrop, and they strategically had to – something Britain's war leaders committed to with renewed determination in the first half of 1942. Mark V Spitfires were hastily sent to the island, and commanders of higher standing and calibre such as Lord Gort and Air Vice Marshal Keith Park, hero of the Battle of Britain, were posted there. And in August, the most heavily defended convoy of the entire war was sent to Malta.

The price of protecting the island was

THE ORDEAL OF MALTA

As the bombs fell, the island's daily struggles grew greater

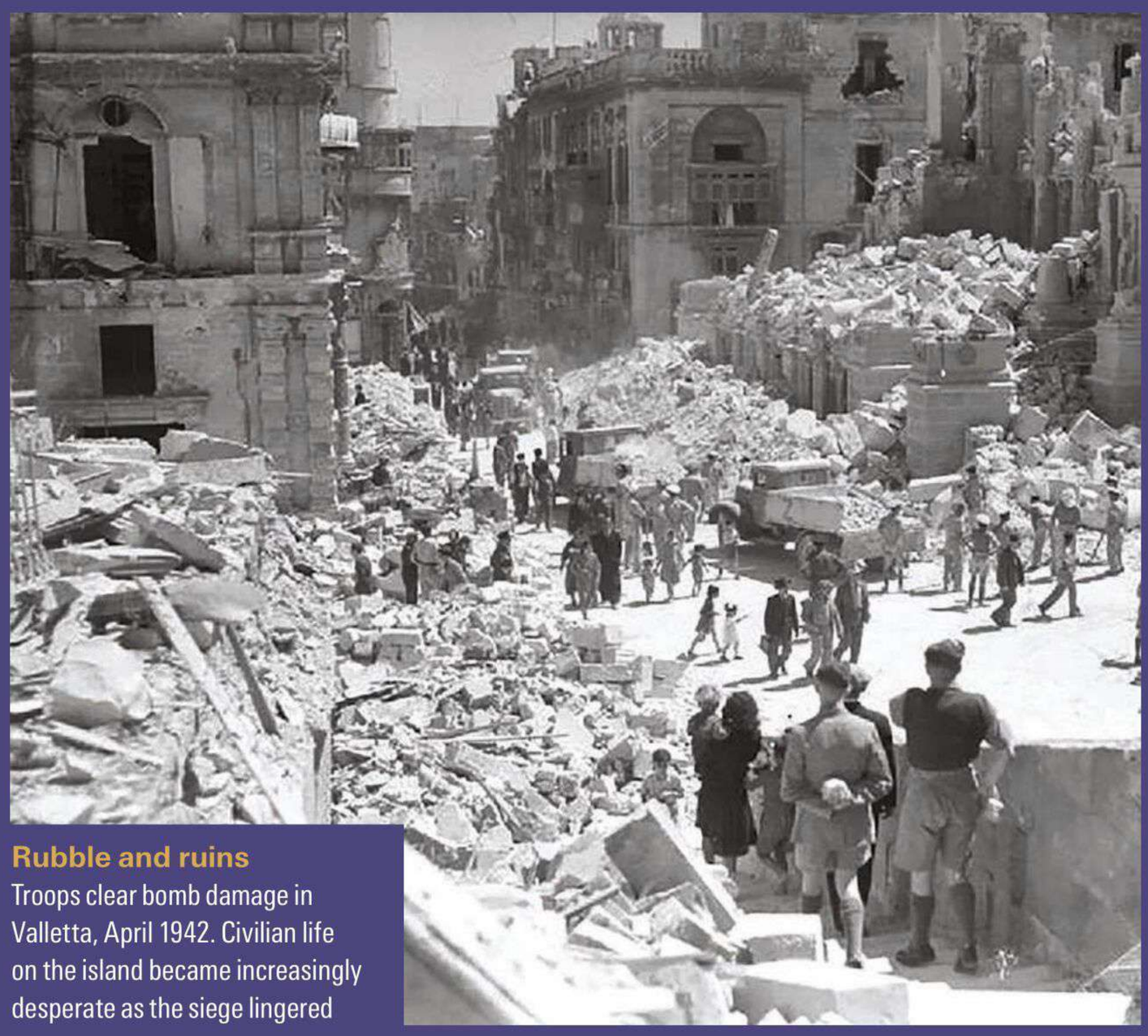
From the start of the siege of Malta, getting supplies through to the island was a difficult prospect. Some could be delivered by air, but this method only accounted for a very small proportion. Realistically, nearly all had to come by sea – and that meant the Mediterranean, which, in all other regards, was closed to British merchant vessels.

Life was tough on the island in the first 20 months of the siege, but it was nothing compared to the summer of 1942. Bombing destroyed flour mills, roads, electricity and water supplies, meaning that food and water were not only incredibly scarce but also extremely difficult to distribute. Documents from Malta's chief medical officer, Dr AV Bernard, reveal a growing sense of desperation among the islanders. "The flushing of lavatory pans after urination to be prohibited," Bernard orders in one document from May 1942. "Where necessary urinals to be flushed twice a day by a person detailed for such duty."

But a month later, an even harsher instruction was being issued: "Drinking and washing of hands under running taps to be absolutely prohibited and stringent action taken against offenders." As the islanders were unable to maintain proper standards of hygiene, this measure had harrowing consequences for their health: in the second half of 1942, Malta was struck by a series of polio, TB and dysentery epidemics.

Could Britain have done more to help? Sadly, this seems unlikely, although there was one dark stain on the island's leadership. In March 1942, three ships safely reached Malta, yet despite the critical importance of the supplies they brought, no plan was put in place to use service personnel to help with the unloading. Even though the island experienced adverse weather conditions and low cloud, meaning they were somewhat protected from enemy planes for two whole nights, no unloading took place at all. When the skies cleared, the Luftwaffe returned and sank all three ships. Just 5,000 tonnes out of the original 26,000 were salvaged. The next convoy in June failed, so it was not until the Pedestal convoy in August – the most heavily defended convoy of the entire war – that Malta received any meaningful resupply.

Poor planning had led to the disaster of the March convoy and Malta's leaders (three service chiefs, governor and lieutenant governor) were to blame. Governor William Dobbie was fired soon after, and Air Vice Marshal Hugh Pughe Lloyd was replaced in July – and not before time.



Rubble and ruins
Troops clear bomb damage in Valletta, April 1942. Civilian life on the island became increasingly desperate as the siege lingered

ALAMY

Scars of war
Sailors throng the deck of the bomb-damaged HMS *Penelope*. The ship was aptly nicknamed HMS *Pepperpot* after the Axis bombed the Port of Valetta's naval base

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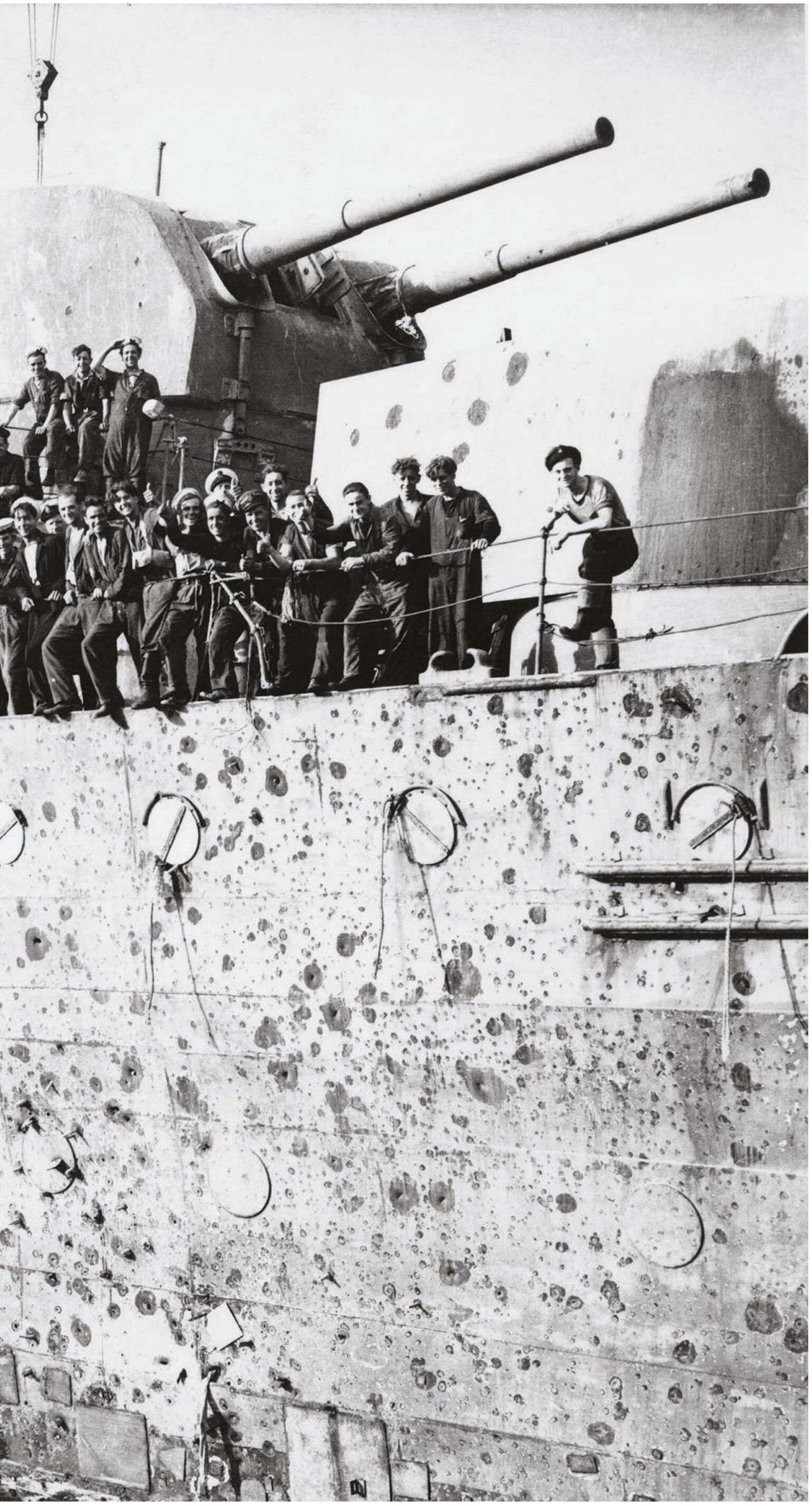

ROMMEL'S GRAND PLANS TO DOMINATE NORTH AFRICA WERE SCUPPERED BY THE SHEER AMOUNT OF SUPPLIES THAT SANK TO THE BOTTOM OF THE SEA

high, but it was worth it, as German records of shipping losses reveal. Even in June 1942, Malta showed her incredible resilience and speed of recovery as aircraft from the island once again sank crucial supplies of fuel, ammunition, vehicles, rations and even replacement cranes for Axis-held ports.

These losses continued as the summer rolled into autumn. In August, Rommel lost more than 40,000 tonnes of fuel; in October, that figure was 30,000 tonnes. As Malta's strength grew, so too did the Axis forces in north Africa wane. Bogged down at El-Alamein with horribly over-extended supply lines, Rommel's plans were savaged by the supplies that sank to the bottom of the sea.

Malta's position also ensured that Axis shipping was forced to take a circuitous route to north Africa, which meant using more fuel and time in getting there. From Malta, Allied reconnaissance aircraft could reinforce the information garnered from German Enigma traffic and so help ensure the code-breakers were not discovered.

The island was also a staging post for the RAF operating throughout the Mediterranean, and later, the fighter-base for the invasion of Sicily. There would have been no invasion without fighter cover, so the recapture of Malta would have been a prerequisite before any Allied assault on southern Europe.

In other words, Malta was worth more than the sum of its parts. The loss of Malta would not only have denied Britain a crucial offensive base, but it would also have handed that capability to the Axis.

History has accentuated the defence of Malta and her stoic fortitude in resisting one of the most intense aerial assaults of the war. And yet it was the island's offensive role that played such a crucial part in the Allied success in north Africa. In this, little Malta punched way above her weight. H

James Holland is a historian, author and broadcaster. His latest book is *Normandy '44: D-Day and the Epic 77-Day Battle for France* (Bantam Press, 2019)

PART TWO
TROUBLED WATERS

“They were terrible conditions. You daren’t touch any metal rail on deck, as your hand would stick to it”

SHUTTERSTOCK

Crew members attempt to clear ice and snow from the deck of HMS *Vansittart* while on convoy escort duty in the Arctic, February 1943

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The thin grey line
A convoy of coastal trading vessels sets out at dawn under the protection of warships and barrage balloons, c1942. The Allies were keenly aware that protecting the Atlantic supply line was key to keeping Britain in the war

THE LONGEST BATTLE

If Britain wasn't to starve in the Second World War, then the Merchant Navy simply had to win its duel with the U-boats of the Kriegsmarine. **GH Bennett** explores the desperate six-year campaign to preserve the Atlantic supply line

Anti-aircraft gunners defending themselves against German dive bombers, 1940

In March 1941 Winston Churchill coined the phrase 'battle of the Atlantic' to describe a campaign that had opened on 3 September 1939. That battle would not conclude until the last day of the war. It was the longest, and perhaps the strangest, clash of the Second World War – one that would see British merchant seamen using kites and wire-carrying rockets in defence of their ships.

In a struggle for control of the sea lanes from Britain to the Americas, the Royal Navy and United States Navy would be pitted against the German Kriegsmarine. Against these crucial supply lines, on which depended Britain's ability to feed and maintain itself in the war, Germany would deploy U-boat submarines, surface raiders, mines and aircraft.

The convoys of merchant ships would be defended by a variety of armed escort vessels, from makeshift ships like armed merchant cruisers and trawlers through to purpose-built corvettes, frigates and destroyers. It was a war of technological innovation – of Enigma code-breaking, radar, sonar and high frequency direction-finding.

AT THE START OF THE HOSTILITIES, THE BRITISH MERCHANT NAVY ACCOUNTED FOR ALMOST A THIRD OF THE WORLD'S MERCHANT SHIPPING

From 1940 until 1943, the combat in the Atlantic hung in the balance. Yet – due in part to the fact that they were able to make better use of these technical innovations than the enemy – from the middle of 1943, the Allies slowly gained the upper hand.

Success and failure in the battle would be measured in tonnage: tonnage of ships sunk and tonnage of cargo delivered safely to port. Civilians would play a significant part in the battle. Campaigns such as 'Dig for Victory' and 'Make Do and Mend' were ancillary elements in the battle of the Atlantic – programmes aimed at minimising civilian demand on the cargoes from North America. But the outcome of the battle of the Atlantic depended most heavily on one group of civilians in particular: the men and, in some cases, the women who made up the British Merchant Navy.

At the start of hostilities in 1939, the British Merchant Navy accounted for almost a third of the world's total merchant shipping. Its strength was testament to generations of British shipping company owners, who over the past 100 years had embraced the technological shift from sail to steam to

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oil power, and had been ready to respond to newly emerging routes carrying everything from guano to corned beef.

The shipping fleet in 1939 was as diverse as it was large, embracing passenger liners (easily converted into troop ships or armed merchant cruisers), fast vessels such as refrigerated cargo ships, oil and petrol tankers, cargo liners, tramp steamers, coasters and colliers.

The men of the British Merchant Navy were similarly diverse. By the end of the war in 1945, more than 30,000 British merchant seamen had lost their lives. Not all of them, however, were British nationals. In fact, Merchant Navy vessels were staffed by seamen from across the British empire and the occupied nations of Europe, such as Norway, Greece and Denmark. Some 25 per cent hailed from India and China, while a further 5 per cent came from the Caribbean, Middle East and Africa. The survival of Britain in the dark days of 1941 and beyond would depend on the continued willingness of this multinational group to put to sea.

The job of protecting the Merchant Navy fell to Allied naval and air forces. During the course of the war, both would become increasingly effective due to the introduction of more deadly depth charges, longer range radar-equipped aircraft and escort carriers to cover those sections of the ocean outside the range of shore-based aircraft.

Yet perhaps nothing saved more Allied vessels than the decision, taken in 1939, to start grouping individual ships into convoys, escorted across the Atlantic by destroyers, frigates, corvettes and larger naval vessels. Each convoy was controlled by one of the larger merchant ships, while the British Admiralty organised routing and changes of course in the light of new intelligence.

Defensively, the convoys made great sense, as unescorted ships proved relatively easy pickings for the enemy. However, convoying reduced the efficiency of individual ships. Forming 40 or more vessels into a convoy took time, and coordinating such a large and diverse force was difficult – especially in the midst of enemy action, mechanical breakdown, and constant zig-zagging and changes of course designed to throw off potential attacks. Some ships found it almost impossible to conform to the speed of the rest of the convoy, becoming a 'straggler' or a 'romper' steaming ahead of the main body.

Yet merchant ships didn't just rely on the Royal Navy for protection: as the strength of the German threat became fully apparent in 1940, increasing numbers of merchant vessels were equipped to act in their own defence. During the first six months of the Second World War, 1,900 ships were fitted

A TYPICAL SHIP MV OLIVEBANK

From its European officers and engineers to the Bengali watchmen, greasers and 'donkeyman' who handled the dirty work, this British vessel was the empire in microcosm

MV *Olivebank* was one of 18 identical 5,000-gross-register-ton cargo ships built for Andrew Weir & Company in the mid-1920s. In her five holds, *Olivebank* could carry everything from agricultural produce to armaments. While she survived the war, eight of her sister ships were sadly not so fortunate.

***Olivebank* was the British empire in microcosm. She had a crew of 57 (30 per cent Europeans and 70 per cent lascars – sailors from the Indian subcontinent). The senior personnel of the ship were European (master, officers and engineers, including apprentice deck officers, who could be as young as 16). In addition, the ship carried 8 to 10 gunners drawn from the Royal Artillery and Royal Navy. Accommodation for Europeans was in two sets of cabins amidships, while lascars lived in a cramped forecastle below deck in the bows.**

Asian members of the crew, recruited in Bengal, were almost all Muslims. They were organised in three departments: deck, engine room and catering. The deck was led by the 'serang' (or bosun), the 'tindal' (his deputy), and the 'cassab' (storekeeper). Four other men were rated as 'seacunnies'. They steered the ship, ran messages, and acted as gangway watchmen in port. Below them in the hierarchy came the 'calassies' (able and ordinary seamen). They had to clean decks, rig cargo-handling gear and act as lookouts.

In the engine room, a similar hierarchy existed. Beneath the engine room serang and tindal there was a 'donkeyman' to look after auxiliary machinery and 'greasers' to service the main engines.

The catering department, run by the chief steward, was primarily concerned with caring for the European officers. Under the chief were three stewards, two of whom served meals in the saloon and one in the engineers' messroom. They also cleaned the officers' cabins. The galley was manned by three cooks, one of whom was always a Christian to cook pork products for the Europeans.

At the bottom of the deck, engine room and catering departments were three 'topass': Hindus of low caste employed to do jobs or handle materials that were taboo for Muslims.

Crewmen on MV *Olivebank*, a cargo ship that managed to survive the war

GH BENNETT

A c1942 lithograph poster by Charles Wood celebrates the achievements of the Merchant Navy

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with defensive armaments ranging from light machine guns to 102mm deck guns. By the end of 1940, this had grown to 3,400. Men were drawn from the Royal Navy and Royal Artillery to man the heavier weapons.

Merchant ships were also equipped with less conventional weapons: the Parachute and Cable Rocket (PAC) could be fired from the bridge of a merchant ship. The device was designed to be fired as an enemy aircraft made a bombing run against the ship. The rocket would carry a cable into the air, which would then be supported by means of a parachute. The cable would either force the attacking aircraft to break away or would catch the wing of the bomber, causing it to crash. Cable-carrying box kites were designed to achieve a similar result.

The Merchant Navy lapel badge was designed to stop the public mistaking mariners for 'shirkers'

No backing down

With equipment that was often more cartoonishly elaborate than deadly effective, facing up to the dangers posed by enemy bombs, torpedoes and surface ships required bloody-mindedness on the part of Merchant Navy crews. Fortunately, life at sea and penny-pinching owners in the hungry days of the Depression had bred exactly this kind of mindset. The Merchant Navy became renowned for its unwillingness to back down from the enemy – or anyone else, for that matter.

In home ports, merchant seamen, without a recognised uniform, were sometimes subjected to abuse from other civilians who mistook them for 'shirkers' refusing to do their duty to enlist in the armed forces. The introduction of an 'MN' (Merchant Navy) lapel badge went a small way to addressing the problem. But what mattered more in 1940 and beyond was a growing national recognition of the work and heroism of the Merchant Navy. This duly arrived in the aftermath of the Battle of Britain, as the press began to give the struggle in the Atlantic increasing coverage.

The heroism of the Royal Navy and the stoicism of the Merchant Navy when confronted with the enemy, or following the destruction of their vessels, were routine themes in newspaper and radio reports. Citations for medals awarded to merchant seamen could encapsulate the grim drama of the battle of the Atlantic in a personal story lasting just a handful of sentences.

"The ship [en route from Milford Haven to London on 24 June 1940] was torpedoed during the night, and listed to port, settling down by the head. The master mustered his crew, and ordered the port lifeboat lowered. It was known that one man had been killed by the explosion, but another man was not accounted for. Although the ship's decks were awash, the second engineer, taking a torch from the lifeboat, volunteered to search for him. Forcing his way to the forepart of the bridge-deck, he found the man badly cut about the head and unconscious in his bunk. He got him out safely, the two men going straight from the rail to the lifeboat. The ship sank as they pulled away. The rescued man owed his life to the gallant act of the second engineer." Thus reads the citation for the award of the Lloyd's War Medal and British Empire Medal to Second Engineer W Pybus of MV *Kingfisher*.

Public attention on the role of the Merchant Navy, and the need to maintain a steady flow of recruits into the service, resulted in a number of government initiatives between 1939 and 1945. The senior surviving member of each crew shipwrecked as a result of hostile action was interviewed by a Royal Navy officer to ensure that lessons were learned about enemy attacks and mariners' prospects for survival when their vessels were sunk. The Board of Trade, shipowners and the Medical Research Council did their best to enhance the survival chances of merchant mariners by developing new rations for lifeboats and survival gadgets, from portable wireless transmitters through to life jacket lights and flameproof lifeboats of particular use on oil tankers.

Meanwhile, the Ministry of Information celebrated the role of merchant seamen in posters and publications, and used the press, public exhibitions and films to highlight the efforts being made to improve the survival chances of merchant crew.

The 1943 docudrama *San Demetrio London* recounts the heroic efforts of a Merchant Navy crew who manage to nurse their badly damaged oil tanker into port following an attack on a convoy by a German surface raider. The film was a reasonably accurate portrayal of real events in the Atlantic in 1940 following the attack on convoy HX 84 by the German pocket battleship *Admiral Scheer*. The on-fire *San Demetrio*, carrying 12,000 tonnes of aviation fuel, was abandoned by her crew during the attack. Part of the crew later reboarded the vessel and extinguished the fire and brought her home, despite damage to the steering gear and lack of a working compass.

While fictional, *Western Approaches* (1944) was a groundbreaking film in a number of respects. It was the first shot in colour by the Crown Film Unit, and it utilised real merchant seamen rather than professional actors. The commendable efforts at authenticity were not, however,

"THE SHIP SANK AS THEY PULLED AWAY. THE RESCUED MAN OWED HIS LIFE TO THE GALLANT ACT OF THE SECOND ENGINEER"

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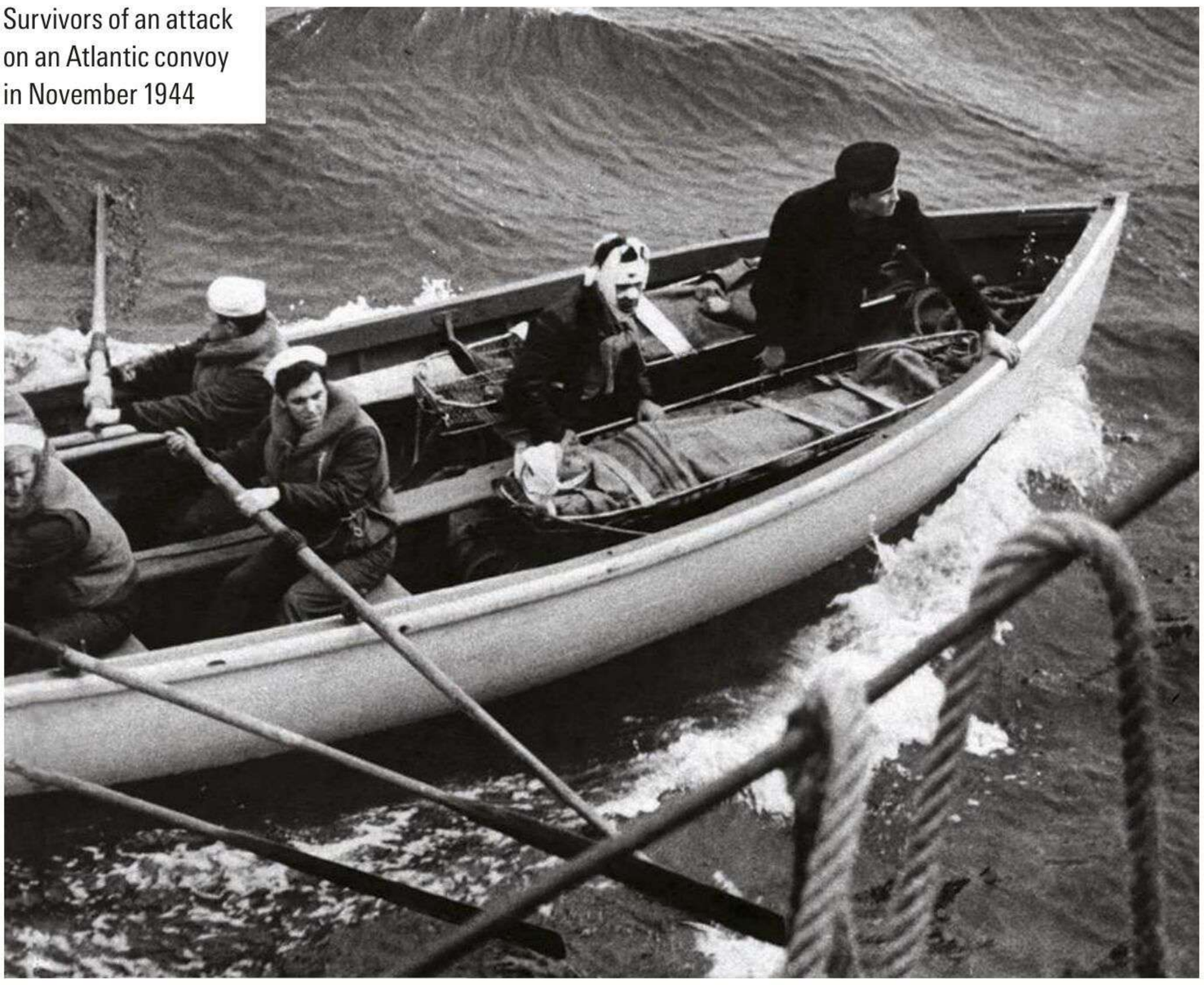
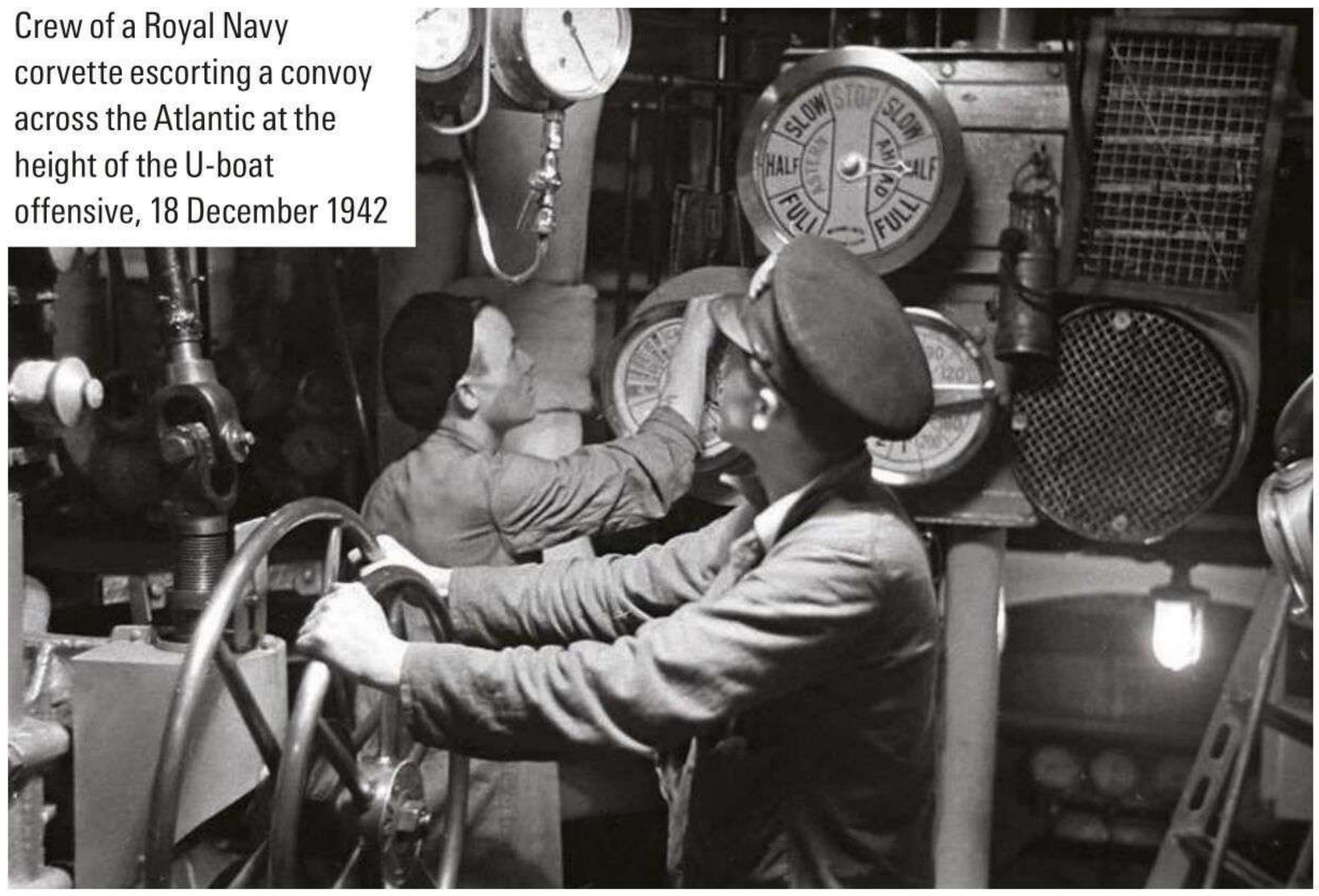


Survivors of an attack on an Atlantic convoy in November 1944



Crew of a Royal Navy corvette escorting a convoy across the Atlantic at the height of the U-boat offensive, 18 December 1942

American coast guardsmen aboard the cutter *Spencer* watch a depth charge explode on 17 April 1943

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allowed to stand in the way of a narrative in which a U-boat is triumphantly sent to the bottom by merchant seamen manning their ship's deck gun.

Western Approaches went on general release just as the Second World War, and the battle of the Atlantic, were drawing to a close. The U-boat campaign had gone badly for the Germans since a critical series of convoy battles in March 1943. By May of that year it was obvious that the German navy was going to struggle to win the tonnage war, thanks to the Allies' increasingly effective use of air power, the greater availability of Allied escort vessels, and the

AFTER SIX YEARS OF COMBAT IN THE ATLANTIC, THE MORALE OF BOTH THE MERCHANT NAVY AND THEIR GERMAN ADVERSARIES REMAINED UNBROKEN

productivity of American shipyards, able to turn out massive numbers of merchant ships to standard designs.

In the nick of time

The increasing obsolescence of the standard Type VII and IX German submarines became manifest in 1943 and 1944. This, despite the fact that the Germans were placing considerable hopes on the introduction of innovations like a snorkel which meant that boats could stay submerged instead of having to regularly surface to recharge their batteries using their diesel engines.

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However, the battle of the Atlantic almost had one last sting in the tail. In the last few weeks of the war the German navy made ready to renew the conflict in the Atlantic with a new generation of submarines: the Type XXI and Type XXIII. Able to remain beneath the waves out of sight of Allied aircraft, and capable of travelling faster underwater than the top speed of most escort vessels, this new generation of U-boat threatened to give the Kriegsmarine the technological edge over its Allied foes.

Unfortunately for the Kriegsmarine – and happily for the Merchant Navy crews who would have been their principal target – the new generation of submarines only reached the stage of operational deployment as the war in Europe drew to a close.

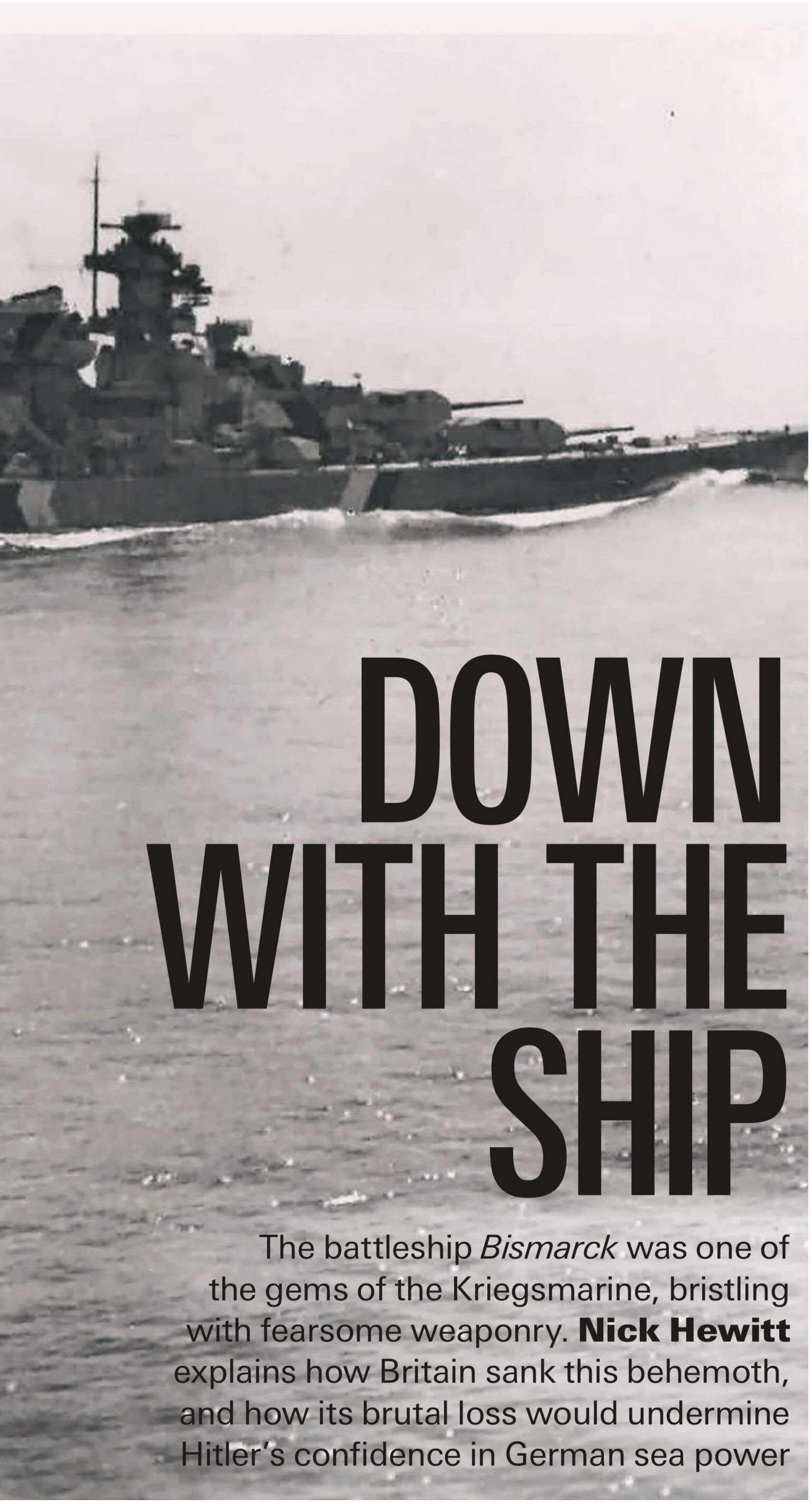
The remarkable thing was that, after six years of combat in the Atlantic, the morale of both the Merchant Navy and their German adversaries remained unbroken – despite the differences in makeup between the two forces, and the fact that both sides had lost around 30,000 men. H

GH Bennett is reader in history at the University of Plymouth. His books include *Hitler's Ghost Ships: Graf Spee, Scharnhorst and Disguised Enemy Raiders* (University of Plymouth, 2012)

Flying the flag

A German sailor signals *Bismarck* during manoeuvres in the western Atlantic, some time before the British gave chase. The maimed battleship sank below the waves on 27 May 1941

ALAMY



DOWN WITH THE SHIP

The battleship *Bismarck* was one of the gems of the Kriegsmarine, bristling with fearsome weaponry. **Nick Hewitt** explains how Britain sank this behemoth, and how its brutal loss would undermine Hitler's confidence in German sea power

THE STORY OF *BISMARCK* HAS BEEN TOLD AND RETOLD... BUT THE TRUTH REMAINS THE MOST COMPELLING OF ALL

On 27 May 1941, HMS *Dorsetshire* sent the following signal to the commander-in-chief of the Home Fleet: "Torpedoed *Bismarck* both sides before she sank. She had ceased firing, but her colours were still flying." So ended the German battleship *Bismarck*'s only operational sortie, which had begun from the Polish coastal city of Gotenhafen (modern-day Gdynia) just over a week before. The dramatic story has been told and retold in books, documentaries, a feature film – and even a country and western song. But the truth remains, perhaps, the most compelling account of all.

Bismarck was launched in February 1939. Weighing in at over 50,000 tons when fully loaded, she displaced more than any other European battleship in service; she was fast, well-protected and heavily armed. When Burkard von Müllenheim-Rechberg joined *Bismarck* in June 1940 as fourth gunnery officer and personal adjutant officer to the ship's captain, Ernest Lindemann, he was fully trusting of her capabilities. "I had supreme confidence in this ship," he wrote in his memoirs. "How could it be otherwise?"

Commissioned on 24 August 1940, by March 1941 she was ready for her first mission, Operation Rheinübung: a raid on the Atlantic convoy routes which merchant ships used to transport vital supplies to Britain from North America. Accompanied by the new heavy cruiser *Prinz Eugen* and under the overall command of Admiral Günther Lütjens, *Bismarck* departed Gotenhafen early on 19 May.

The British watched *Bismarck*'s progress apprehensively. Between January and May in that year, 277 British and Allied merchant ships totalling almost 1.5 million tons had been sunk, mostly by German U-boats in the Atlantic. Putting merchant ships into convoys was the answer, but a powerful German surface force could spell disaster, as *Bismarck* could overwhelm any convoy escort, forcing the merchant ships to scatter and leaving them vulnerable to submarines.

Lütjens' route took him through the Kattegat (a sea area between Denmark, Norway and Sweden) and along the

Norwegian coast to Bergen. His squadron was spotted twice, once by a Swedish cruiser and once by members of the Norwegian resistance, and by 20 May, London knew that *Bismarck* was at sea. On 21 May RAF reconnaissance pilot Michael 'Babe' Suckling photographed the two ships refuelling in the fjords near Bergen. He hand-delivered the developed prints from his base at Wick, in northern Scotland, to London.

In response, Admiral Sir John Tovey, commander-in-chief of the Royal Navy's Home Fleet, sent cruisers to patrol the Denmark Strait between Iceland and Greenland, and the Iceland-Faroe Gap to the south-east. The battlecruiser HMS *Hood* and the brand-new battleship HMS *Prince of Wales* raced to Iceland, while the rest of the fleet waited at Scapa Flow, its Orkney base, ready to depart at short notice. For now, there was nothing else to do but wait. Winston Churchill cabled US president Franklin D Roosevelt a worrying message: "Tonight they [*Bismarck* and *Prinz Eugen*] have sailed. We have reason to believe a formidable Atlantic raid is intended."

The chase begins

Early in the morning of 23 May, while dodging ice floes and battling through rain, fog and occasional snowfall, Lütjens began his dash through the Denmark Strait. Despite the foul weather and Lütjens' efforts to stay concealed, at 7.22pm *Bismarck* and *Prinz Eugen* were sighted by the British cruisers HMS *Norfolk* and HMS *Suffolk*.

Neither side sought a battle. The outgunned British wanted to 'shadow' the Germans, reporting their position until more powerful reinforcements arrived, while Lütjens wanted to shake off his pursuers and vanish. Twice, the admiral turned towards the enemy vessels to try and drive them away (and once *Bismarck* even opened fire, narrowly missing *Norfolk*), but the British cruisers hung on until reinforcements arrived at dawn the following day.

"It must have been around 5.45am, the rising sun having already lit up the horizon, when the smoke plumes of two ships and then the tips of their masts came into view on our port beam," recalled Burkard von Müllenheim-Rechberg. "The silhouettes of the ships below them became visible... I heard Albrecht [*Bismarck*'s second gunnery officer] shout, 'The *Hood*!'"

Vice Admiral Lancelot Holland – second-in-command of the home fleet, who was sailing on *Hood* – faced significant challenges. *Hood* had a formidable reputation, but she was old, and to ensure that she could reach high speeds and boast big guns, her designers had sacrificed deck armour. Conversely, *Prince of Wales* was so new that she had left port with civilian technicians aboard to work on her unreliable four gun turrets. Trying to close the range and overcome these serious handicaps, Holland drove his formation towards the enemy, which meant the British ships could only fire their forward guns against the Germans' full broadsides when the action began at 5.52am.

Within minutes, Holland realised his mistake and started to turn his ships to bring their aft (rear) turrets into action, as shells from both German ships began to drop around *Hood* and smash into her superstructure. But it was already too late.

"[She] disappeared into a big orange flash and a huge pall of smoke," Leading Sick Berth Attendant Sam Wood recalled. "Time seemed to stand still. I just watched in horror... the *Hood* had gone." 1,415 men died; there were only three survivors. The entire battle lasted just nine minutes.

Bismarck and *Prinz Eugen* now turned

Gunning for glory
Bismarck opens fire on HMS *Prince of Wales* and HMS *Hood*. Combined with the efforts of *Prinz Eugen*, the ageing *Hood* sank almost immediately

1,415 MEN DIED WITH THEIR SHIP; THERE WERE ONLY THREE SURVIVORS. THE BATTLE LASTED JUST NINE MINUTES

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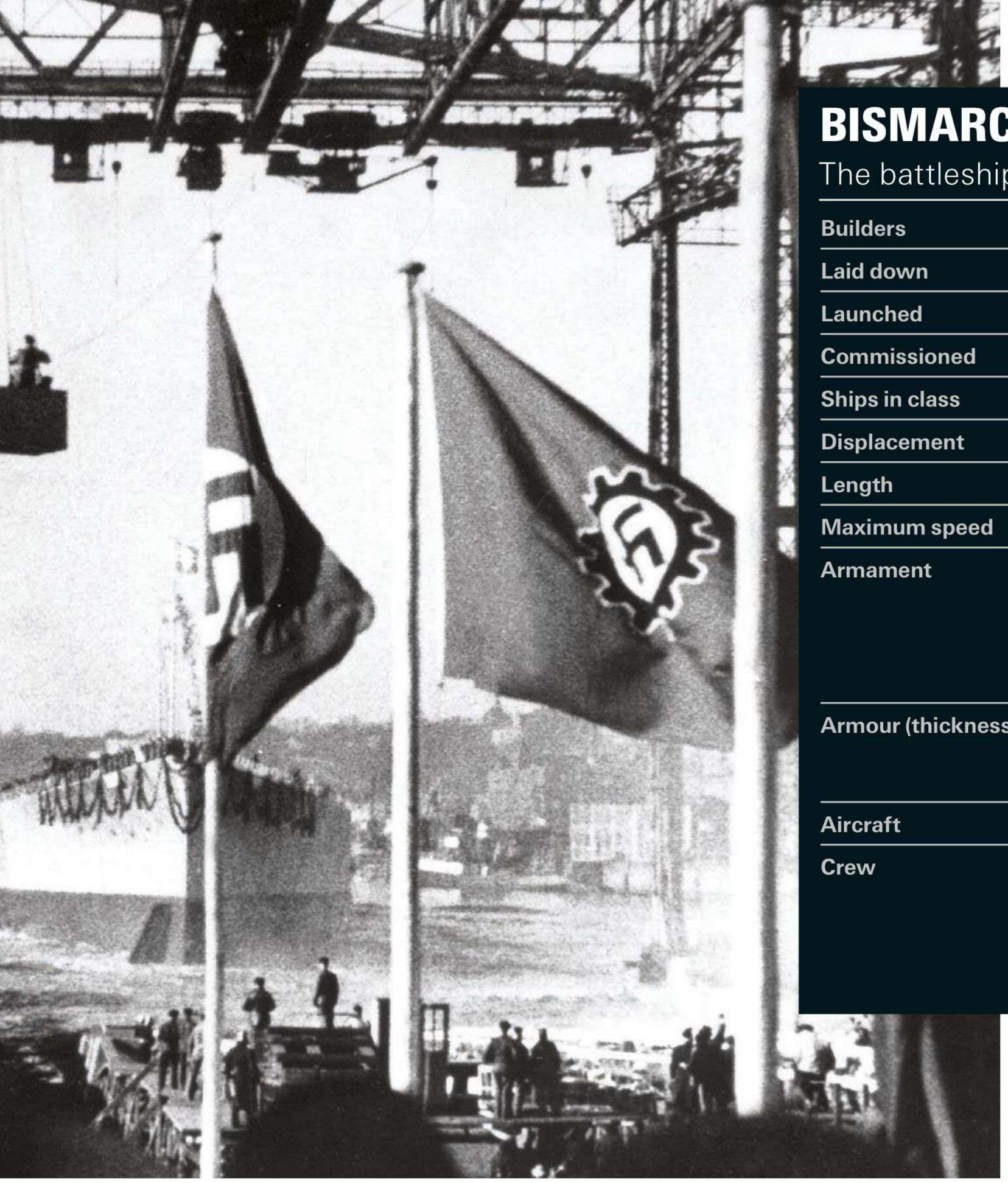

BISMARCK FACT FILE

The battleship packed a deadly punch

Builders	Blohm & Voss, Hamburg
Laid down	1 July 1936
Launched	14 February 1939
Commissioned	24 August 1940
Ships in class	2 (including *Tirpitz*)
Displacement	53,000 tons (max. displacement)
Length	251m
Maximum speed	30 knots (35 mph) during trials
Armament	8 x 380mm 12 x 150mm 16 x 105mm (Anti-Aircraft) 16 x 370mm (Anti-Aircraft) 18 x 20mm (Anti-Aircraft)
Armour (thickness)	Belt: 320mm Turrets: 360mm Main deck: 120mm (maximum)
Aircraft	4 x Arado Ar 196 floatplanes
Crew	2,065 (more than 2,200 on board during the Atlantic sortie due to the inclusion of the Admiral's staff, prize crews and war correspondents)

Maiden voyage

Bismarck is launched from Hamburg on 14 February 1939. Her speed, extensive armour and firepower gave the British grave cause for concern, says Nick Hewitt

their fire on *Prince of Wales*, and the ship's commander, Captain John Leach, narrowly escaped death after a large shell from *Bismarck* smashed into the battleship's bridge, killing or wounding everyone else there. He wisely withdrew under cover of a smoke screen, and for the rest of the day, *Prince of Wales* and the two cruisers, now under the command of Rear Admiral Frederic Wake-Walker in *Norfolk*, continued to shadow from a distance.

Battle damage

Lütjens had his victory, but *Prince of Wales* had hit *Bismarck* twice. One exploding shell flooded a boiler room, reducing her speed, while the other penetrated an oil tank, contaminating her fuel and causing it to leak into the sea. Lütjens signalled Berlin, stating that he intended to detach *Prinz Eugen* to continue the raid and take *Bismarck* to the French port of Saint-Nazaire for repairs. To cover the cruiser's escape, at 6.14pm Lütjens traded salvoes with *Prince of Wales*.

In London, Winston Churchill spent an anxious night considering the consequences of the day's action. He later wrote in his 1950 book, *The Grand Alliance*: "What if we lost touch in the night? Which way would she go? She had a wide choice, and we were vulnerable almost everywhere."

And if *Bismarck* did manage to escape, the damage to British prestige would be incalculable, particularly in the still-neutral United States. Admiral Tovey's fleet was already on the way, but now every ship that could be mobilised rushed to the Atlantic. More cruiser patrols were ordered out, extra battleships were detached from convoy escort duties, and Vice Admiral Sir James Somerville's Force H raced north from Gibraltar with the aircraft carrier HMS *Ark Royal* and battlecruiser HMS *Renown*.

Desperate to slow *Bismarck*, Admiral Tovey, moving south from Scapa Flow but still about 330 miles away, pushed his aircraft carrier HMS *Victorious* ahead at high speed to launch an air strike. *Victorious* flew off her aircraft just after 10pm, when she was 100 miles from *Bismarck*. After a nightmarish journey though darkness, low cloud and rain, the Swordfish torpedo bombers attacked into a storm of shell fire; Lindemann even fired his ship's 380mm main guns into the water to create huge splashes ahead of the attacking biplanes. *Bismarck* dodged eight torpedoes, but the ninth struck the centre of the vessel. Violent manoeuvring worsened the German battleship's flooding and eventually cost her another boiler, further slowing her speed. All the Swordfish returned safely.

British celebrations were short-lived, however. At 3am, Wake-Walker, concerned about U-boat attacks, ordered his shadowing warships to zigzag. As the British ships temporarily turned away from him, Lütjens increased speed, broke radar contact and slipped away. "The day," wrote Churchill, "which had begun so full of promise, ended in disappointment and frustration."

By dawn on 26 May, the situation was bleak. *Bismarck* had vanished, and although the navy's best guess was that she was making for the French port city of Brest, nobody was sure. The frantically searching warships were running out of fuel when, at 10.30am, a patrolling Catalina flying boat piloted by a US Navy pilot on secondment to the RAF picked up *Bismarck* steaming east. She was just under 750 miles – less than

Clinging on for life
Bismarck survivors swim alongside HMS *Dorsetshire*, desperately seeking rescue

Dead in the water
Bismarck sinks to the depths of the Atlantic. It is possible that the crew deliberately flooded the stricken ship to stop it falling into enemy hands

a day's steaming – from safety. The only hope of stopping her lay with Somerville's Force H, which was under 70 miles away.

Racing against the clock

Somerville pushed his only cruiser, HMS *Sheffield*, up ahead to shadow the wounded German behemoth and launched an air strike. In the confusion, the Swordfish pilots accidentally attacked *Sheffield*, fortunately missing her, but the mistake cost time, as the aircraft had to return to *Ark Royal* and rearm. With every minute lost, *Bismarck* drew nearer to Luftwaffe air cover. The second strike launched at 7.10pm and attacked at 8.47pm. John Moffat, who flew one of the Swordfish during the attack, recalled: "I felt that every gun on the ship was aiming at me... I do not know how I managed to keep flying into it; every instinct was screaming at me to duck, turn away, do anything." However, Moffat didn't succumb to his nerves. "I held on, and we got closer and closer... I pressed the button on the throttle. Dusty [Miller, Moffat's observer] yelled, 'I think we've got a runner!'"

Then, two torpedoes – possibly including Moffat's – hit *Bismarck*. Catastrophically, one ripped a hole in her stern and flooded the steering gear compartment, jamming her rudder in a 12-degree turn to port and leaving her unmanoeuvrable. All night, German sailors tried to repair the damage while fending off torpedo attacks by pursuing British destroyers, but at dawn she was still steaming in a circle.

Bismarck's last battle began just before 9am on 27 May, when Admiral Tovey approached the slowly circling giant with the battleships HMS *King George V* and HMS *Rodney,* as well as the cruisers *Norfolk* and *Dorsetshire*. Tovey's four ships pummelled *Bismarck* at a progressively closer range for over an hour, firing nearly 3,000 shells and scoring hundreds of hits. Unable to manoeuvre, *Bismarck* could barely land a blow in return, and by 10am the German battleship was a wreck. Allied sailor Eric Flory was watching from *King George V*. "There was the *Bismarck* away to starboard," he remembered, "listing to port, guns pointing in all directions... Fires were raging, and the steel plates were showing red hot."

The Scottish writer and broadcaster Ludovic Kennedy was serving in the destroyer HMS *Tartar*, and he recalled how he "had never seen a more magnificent warship, and she sat squarely in the water taking terrible, terrible punishment".

At about 10.20am, Tovey sent *Dorsetshire* in to finish *Bismarck* off with torpedoes. Unchallenged, the cruiser manoeuvred around the crippled giant, methodically putting a torpedo into each of her sides. Following these hits, *Bismarck* rolled over to port and sank by the stern. Subsequent examination of the wreck indicates that the crew may have been flooding the ship at the same time to keep her from the British.

From the original crew of over 2,200, 110 survivors were rescued by HMS *Dorsetshire* and HMS *Maori*; they then left the scene and abandoned hundreds of survivors following a U-boat warning. Five more survivors were subsequently found by German warships searching the scene after the British had left. Lütjens had died earlier in the battle, but Lindemann seemingly chose to go down with his ship and was last seen standing on deck, his arm raised in a salute. Burkard von Müllenheim-Rechberg was one of the few that were rescued, and he recalled rousing his fellows to action: "'A salute to our fallen comrades,' I called. We all snapped our hands to our caps, glanced at the flag, and jumped."

The fate of *Bismarck* cast a long shadow. Hitler, never confident about his navy, "radically restricted the movements of these major units", recalled Kriegsmarine chief Grand Admiral Erich Raeder. "The success we had had, even with our inferior forces, through bold initiative and the taking of calculated risk, was to be a thing of the past."

The British remained haunted by the huge effort and considerable luck required to catch *Bismarck,* and they expended enormous resources ensuring her sister ship, *Tirpitz,* never broke out. In June 1942, a brief sortie by *Tirpitz* led to the scattering of Arctic Convoy PQ 17, and its wholesale slaughter by U-boats and the Luftwaffe.

However, Britain's battle against *Bismarck* had ultimately proved a success. It fell to Churchill to announce the news to the House of Commons. "A slip of paper was passed to me," he recalled. "I asked the indulgence of the House and said, 'I have just received news that the *Bismarck* is sunk.' They seemed content." H

"I FELT THAT EVERY GUN ON THE SHIP WAS AIMING AT ME... EVERY INSTINCT WAS SCREAMING AT ME TO DUCK, TURN AWAY, DO ANYTHING"

Nick Hewitt is an author and naval historian. He is head of collections and research at the National Museum of the Royal Navy

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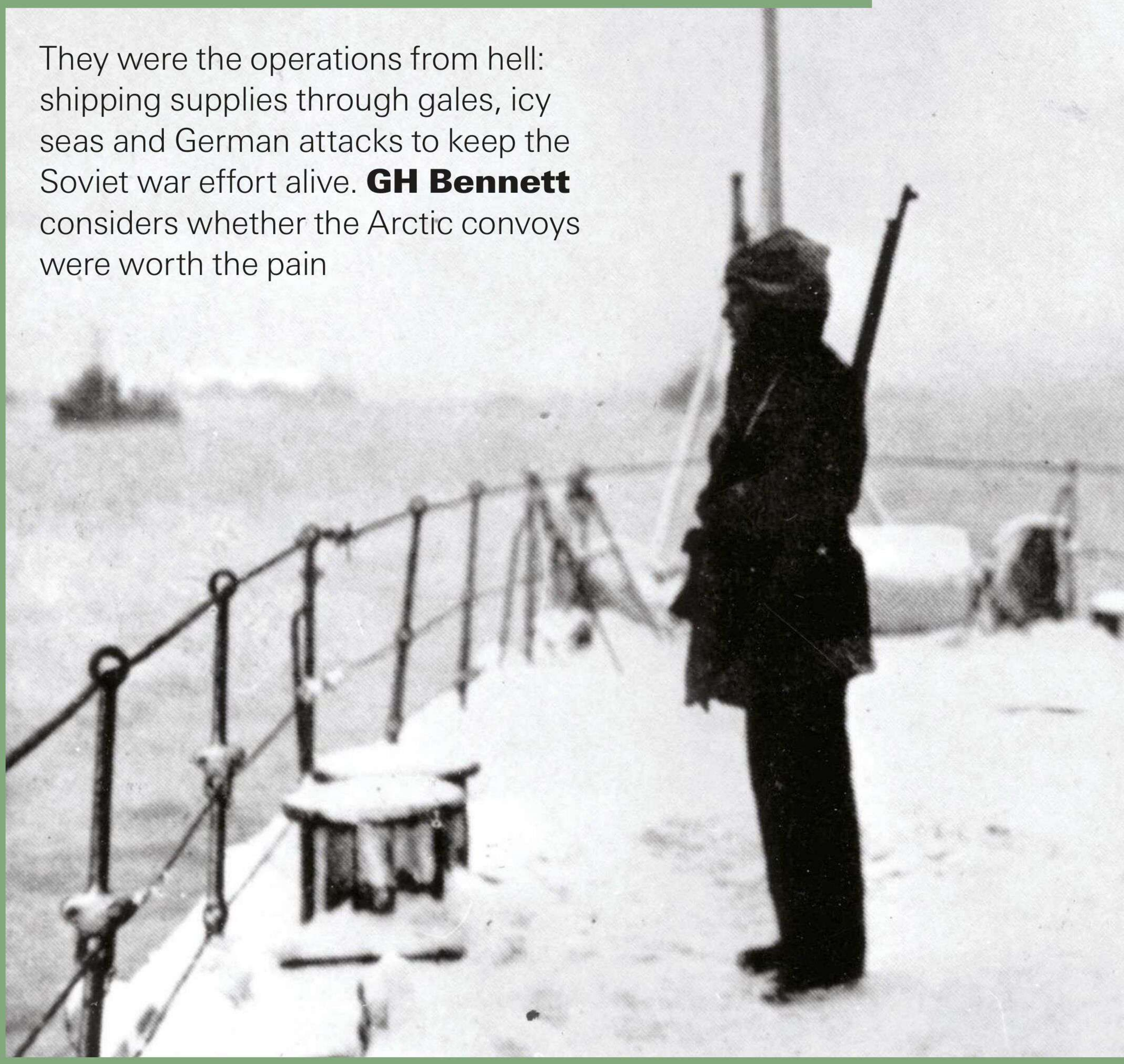
"THE WORST JOURNEY IN THE WORLD"

They were the operations from hell: shipping supplies through gales, icy seas and German attacks to keep the Soviet war effort alive. **GH Bennett** considers whether the Arctic convoys were worth the pain



The quarterdeck of an Allied light cruiser on escort duties in the Arctic winter. "You daren't touch any metal rail on deck as your hand would stick to it," remembered one veteran

TOPFOTO

Troubled waters **Arctic convoys**

The crew of HMS *Vansittart* clear the ship of an estimated 200 tonnes of ice and snow in February 1943. Thick ice constantly re-formed in the sub-zero conditions, and if left unchecked could disable armaments or even cause ships to capsize

On Christmas Eve 1942, the crew of the fleet destroyer HMS *Obdurate* were hanging Christmas decorations in the anchorage at Seyðisfjörður in Iceland. Since commissioning in September they had been involved in operations inside the Arctic Circle, travelling to north Russia and providing distant cover for convoy QP 15 as it made its way slowly through the enemy-infested waters. As the crew of *Obdurate* settled down to mark Christmas as best they could, the captain's voice came over the loudspeaker to announce that at 23.00 hours they would depart to reinforce the escort of convoy JW 51B, bound for Russia. Good humour gave way to gloom as the crew cleared for sea, wondering at the dangers that lay ahead of them on a route that Churchill would label "the worst journey in the world".

It was Churchill who had initiated the convoy route to the Soviet Union following Germany's attack on the USSR on 22 June 1941. Reaching the country through the Baltic or Black Sea was impossible. Access through the Persian Gulf or Vladivostok involved long voyages followed by lengthy rail journeys. The shortest and quickest way to get aid through was via convoys from British/Icelandic waters to the ice-free port of Murmansk and (when free of ice) to Arkhangelsk.

In deciding to send aid to the USSR, Churchill had to set aside his ardent anti-communism, as well as recent bitter memories of the Molotov-Ribbentrop Pact of 1939, the Soviets' seizure of the Baltic states and eastern Poland, and the Russo-Finnish Winter War of 1939–40. Cargoes to the Soviet Union represented a vital hand of friendship from Churchill to Stalin and an important step in constructing the alliance that would defeat Hitler. In November 1941, the US followed Churchill's lead in providing assistance to the country.

Since 1945 there has been an active debate among historians, significantly coloured by the Cold War, about the extent to which aid sent to the Soviets was of genuine military significance to the outcome on the eastern front, or whether the primary impact of the Arctic convoys was on the maintenance of the alliance between Britain, the USSR and the United States. Churchill's account of the Arctic convoys in his book *The Second World War* is dominated by diplomatic exchanges with Stalin. With the Red Army suffering horrendous losses in 1941 and 1942, maintaining the Arctic convoys was a vital Anglo-American symbol of continuing support for the Soviet Union.

Unable to launch a second front in Europe to take the pressure off the Soviet armies, the convoys and the Allied heavy bomber offensive represented tangible means by which the British and Americans could affect the balance on the eastern front. Stalin pressed the western Allies for ever greater supplies in 1941 and 1942 and reacted on an almost personal level to any possibility that the convoy traffic might be interrupted. Yet it was one thing to offer the hand of friendship, but quite another to continue to maintain the supply route to the Soviet Union in the face of Arctic weather and the actions of a determined enemy.

The first phase of the Arctic convoys lasted from August 1941 to March 1942. In that time 13 convoys (114 merchant ships) sailed to north Soviet ports, with nine convoys on the return leg (100 merchant ships). Just two of the merchant ships were sunk, since the Germans, confident of victory in the Soviet Union, made only limited attempts to disrupt the traffic.

Yet even without enemy action, the Arctic convoys represented a marathon of human and mechanical endurance. In the darkness of the Arctic winter, maintaining station in the columns of ships that made up the convoys, while skirting the edge of the pack ice and steering a zig-zag course, offered

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major challenges to convoy commodores, escort commanders and watchkeepers on ships' bridges. Navigation presented special problems in high latitudes. Overcast skies frequently prevented observation of the sun or stars, while visibility was often restricted and signal flags or lamps might be unreadable, compasses unreliable and binoculars frosted over.

Mountainous seas

Loose floating sea ice was another danger. Unless specifically built for Arctic conditions, the bows of warships and merchant ships were not designed to withstand collisions with substantial chunks of ice. Propellers were also easily damaged. Accommodation on most ships was inadequately insulated. Freezing temperatures, blizzards and mountainous seas meant that ice built up steadily on the upperworks of ships. This could disable machinery (including armament) and make the ship vulnerable to turning turtle by altering the centre of gravity. Axes, mallets, shovels and steam hoses were used to reduce the topside weight of ice, but that meant routinely sending men out on deck in sub-zero temperatures to chip and shovel.

As one Arctic veteran later recorded: "If you didn't shift the ice the ship could capsize, it was in danger of overturning... We had to try and chip it off with hammers and scrapers – anything you could lay your hands on. They were terrible conditions. You daren't touch any metal rail on deck as your hand would stick to it." Frostbite was a constant danger, and immersion in the sea for even a few minutes was virtually a death sentence. Living for days on end in a cold, permanently wet environment took its toll on both crews and ships.

Donald Goodbrand, the telegraphist on HMS *Obdurate*, recorded his impressions of Christmas Day at sea while on the run to Russia: "Christmas Day in the Arctic Ocean [involved] watchkeeping, scrubbing decks, clearing up the mess of broken crockery, wet articles of food, clothing and vomit and odds and ends that swirled in sodden masses around the mess deck as water poured through ventilation shafts in the fetid fug provided by closed ports and deadlights, as the ship rolled and pitched in manic desperation."

While the sun never rose in the depths of the Arctic winter, in the summer it never set, offering considerable opportunities for the enemy forces that pursued the convoys around the North Cape of Norway and on to the Soviet Union. By March 1942, the forces deployed against the Arctic convoys had grown considerably: some 260 Luftwaffe strike aircraft were ready to operate against the supply ships, together with submarines, the battleship *Tirpitz*, two heavy cruisers and supporting destroyers. The battlecruiser *Scharnhorst* would later join *Tirpitz* in Norwegian waters, as the German navy concentrated its surviving major surface units in the north to threaten the Soviet convoys. As the eastern front victories for the German army of 1941 and early 1942 gave way to defeats and slow collapse, stopping the Arctic convoys became one means to potentially affect the balance in the east.

FOR THE WESTERN ALLIES, MAINTAINING THE ARCTIC CONVOYS WAS A VITAL SYMBOL OF CONTINUING SUPPORT FOR THE SOVIET UNION

During the 12 months from March 1942 to March 1943, the Arctic convoys became a byword for the horrors of the war at sea. Ten convoys (265 merchant ships) were sent to the Soviet Union, plus 11 independently routed vessels. Sixty of the merchant vessels would not reach their destination and a further 22 ships were lost on the return leg (which consisted of nine convoys and 27 vessels routed independently) through enemy action, mines and harsh seas.

The losses included the virtual destruction of convoy PQ 17, which sailed from Iceland on 27 June 1942. Its 35 merchant ships carried 4,600 tanks and motor vehicles, 300 combat aircraft and over 150,000 tonnes of general cargo. Twenty-four of the merchant vessels were sunk after the convoy was dispersed on 4 July in the mistaken belief that an attack by major German warships was imminent. The losses led to a pause in the flow of convoys and close scrutiny of their operation and value.

British Matilda II tanks, bound for the Soviet Union, on a British quayside

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A British warship escorting convoy PQ 18 opens up on attacking German aircraft, September 1942. This was the first convoy after the devastating loss of 24 vessels from PQ 17 in July 1942, which led to close scrutiny of the convoys' value

The German high command was jubilant. The Führer Conference on Naval Affairs on 26 August 1942 recorded: "We can... assume that our submarines and aircraft, which totally destroyed convoy PQ 17, have forced the enemy to give up this route temporarily or even fundamentally to change his whole system of supply lines. Supplies to northern ports of Russia remain decisive for the whole conduct of the war waged by the Anglo-Saxons. They must preserve Russia's strength in order to keep German forces occupied."

Heroic defence

It was not until 2 September 1942 that convoy PQ 18 departed (with a strong escort and aircraft carrier group in support) from Loch Ewe, Scotland. The pressure on the German navy to respond effectively to the renewed convoy traffic became acute by late 1942. On 22 December 1942, convoy JW 51B sailed from Loch Ewe. HMS *Obdurate* and four other vessels from 17th Destroyer Flotilla joined the convoy on Christmas Day as reinforcement to the existing escort and in anticipation of a potential engagement with German surface ships. On 31 December the convoy was attacked by the heavy cruisers *Lützow* and *Admiral Hipper* and six destroyers. The convoy's escort succeeded in holding them away from the merchant ships until the arrival of two covering British cruisers (*Sheffield* and *Jamaica*) forced the Germans to withdraw.

This action, the battle of the Barents Sea, cost the escort one destroyer and one minesweeper, and the Germans also lost a destroyer. No merchant ships were lost, with the convoy arriving at the Kola inlet on 4 January.

The ineffective handling of the German ships led Hitler to demand the decommissioning of the major surface units of the Kriegsmarine. The navy head, Grand Admiral Raeder, resigned rather than accept the decision, leading to his replacement by Admiral Karl Dönitz, head of the submarine arm. Although Dönitz was able to save most of the surface ships from decommissioning, the incident underlined the strategic impact of Arctic operations. The heroic defence of Convoy JW 51B during Christmas 1942 had brought Hitler to the point of renouncing any further interest in maintaining a surface fleet capable of carrying out long-range operations.

If the German navy was under the strongest political pressure to stop the convoys, in Allied circles there was considerable resolve to maintain the flow of supplies. For example Lord Beaverbrook, a close associate of Churchill who had met Stalin in 1941, demanded in the House of Commons on 3 February 1943: "Something much greater must be done... so that Russia may win battles. We must get supplies there. It is no use saying that the convoy system is difficult, that the road is long, that the path is over the sea, and that ships are difficult to come by."

As the convoys continued to run, Norwegian waters became the graveyard of the pride of the German navy. The battleship *Tirpitz* was heavily damaged in September 1943 by midget submarines. On Boxing Day that year, the battlecruiser *Scharnhorst* was destroyed in a battle with British heavy units after she had attempted to close with convoy JW 55B. *Tirpitz* was damaged again by attacks by Fleet Air Arm aircraft launched from carriers in April 1944. Reduced in role to little more than a floating gun battery for the coastal defence of Norway, the *Tirpitz* succumbed to an attack in November

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A British poster from 1941 supporting the continuation of shipping to the Soviet Union

ARMS FOR RUSSIA . . . A great convoy of British ships escorted by Soviet fighter planes sails into Murmansk harbour with vital supplies for the Red Army.

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An ice-covered British warship patrols northern waters in April 1941. Over the course of the war, some 4.5m metric tonnes of cargo were successfully delivered to the Soviet Union, together with 7,000 aircraft and 5,000 tanks

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1944 by the Lancasters of No 9 and 617 Squadrons RAF.

The erosion of German military power in the north meant an easing in the toll of casualties between April 1943 and May 1945. Eighteen outbound convoys totalling 485 merchant vessels lost just five ships, and 18 return leg convoys (454 merchant ships) lost only eight vessels. By war's end, some 78 convoys had fought their way to and from the Soviet Union. Some 85 merchant ships had been lost, along with 24 Allied warships (including the cruisers HMS *Edinburgh* and *Trinidad*). The German navy, meanwhile, lost 38 ships (including 31 U-boats).

While the casualty lists make grim reading – 829 merchant and 1,944 Royal Navy seamen lost their lives on the Arctic convoys – a considerable volume of cargo had been safely brought to its destination. Some 4.5m metric tonnes of cargo were delivered, together with 7,000 aircraft and 5,000 tanks. Those aircraft and tanks made a difference on the battlefield, replacing critical losses in the period 1941 to 1942. The provision of thousands of motor vehicles enhanced the mobility of the Red Army, and eased the logistical problems of fighting across a rapidly moving front stretching from the Baltic to the Black Sea. By 1944, the Red Army was able to launch successive and sustained offensives along the full length of the eastern front.

The Arctic Star is awarded to veterans of the convoys

A show of gratitude

The Arctic convoys had a considerable military value in terms of bolstering the material resources of the Red Army, and a significant political value in forging the alliance that would defeat Hitler. Yet their true contribution to victory has to be seen at a more strategic level. The convoys constituted a seaborne northern front against the German empire. Hundreds of aircraft that could have bolstered the German air force on the eastern front, or else been sent against the Mediterranean convoys, or used to disrupt the Allied build-up in the UK, were instead deployed to the far north. Likewise, the submarines and surface ships operating in Arctic waters were not at large in the Atlantic or the Indian Ocean. The fighter squadrons that provided cover for units like the *Tirpitz* were not available against the bomber streams targeting Germany's factories and cities.

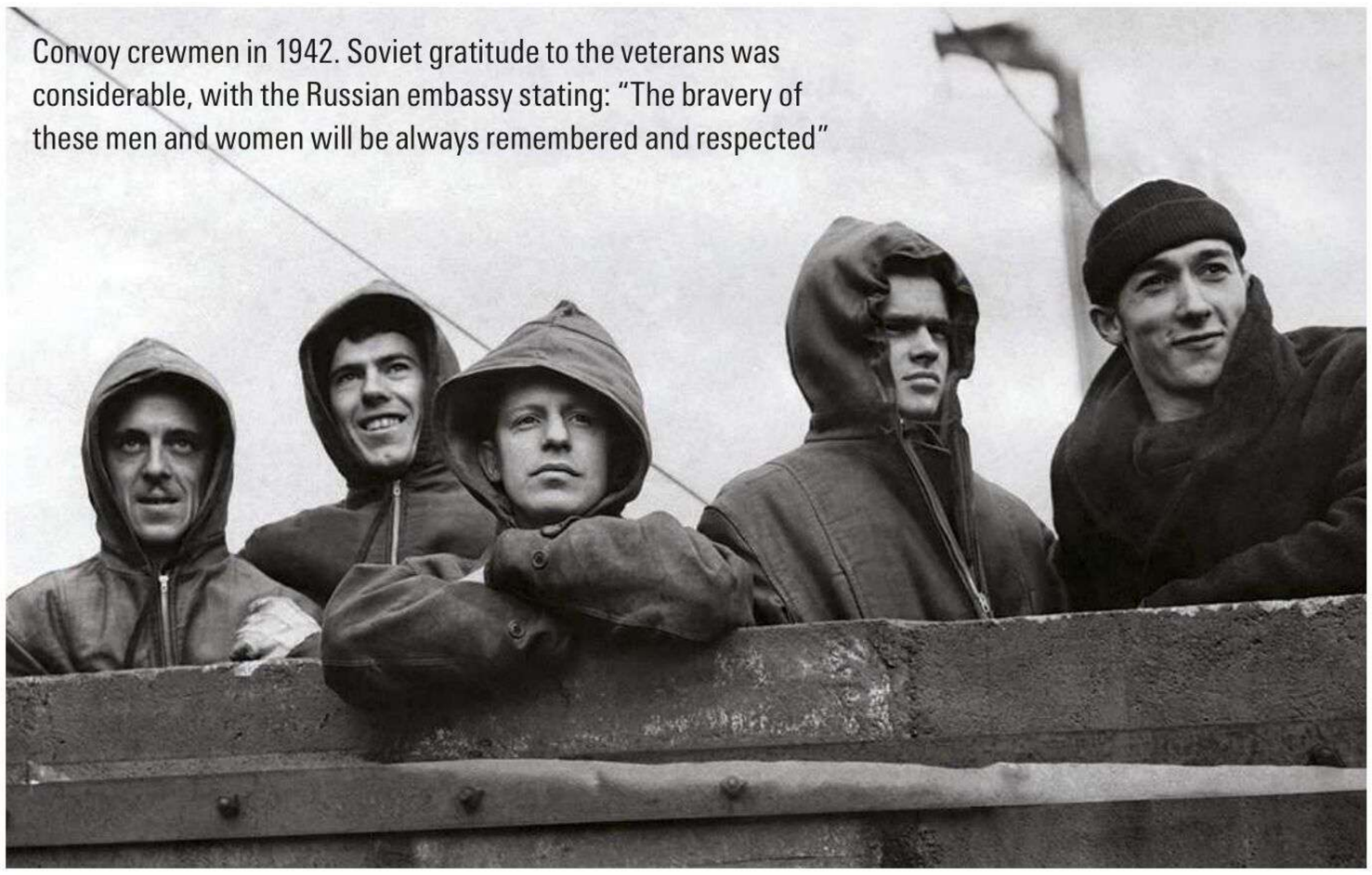
Convoys navigating the route to the USSR, and Royal Navy operations against the surface ships deployed against them, also underlined Norway's vulnerability to Anglo-American amphibious missions. That in turn forced the Germans to maintain substantial land forces in Norway. By 1944, the Germans faced a potential amphibious threat to their European empire that ranged from the coast of Norway to the shores of the Aegean.

The Arctic convoys were a classic example of the utility of seapower: making a material difference to a distant and critical battlefield, forcing the enemy to deploy forces needed on other fronts, while offering a highly mobile and effective threat through amphibious operations and carrier-borne aircraft.

After 1945, the Cold War cast a long shadow over the achievements of those who had fought the convoys through ice and fire. Attempts by the Soviets after 1985 to award medals to British veterans became the subject of diplomatic wrangles between the countries. Soviet gratitude to the convoy veterans was considerable, as the website of the Russian embassy in London still demonstrates: "The Allied seamen showed true heroism in their long and perilous sea passages in convoys, being constantly attacked by enemy forces in the appalling weather conditions of the Arctic. The bravery of these men and women who unsparingly fought for the victory will be always remembered and respected."

It was not until late 2012 that the British government finally instituted its own campaign medal in the form of the Arctic Star. Seventy years after the event, the recognition inevitably came too late for some of those heroes of the ice who had served above latitude 66° 32' North. H

IN 2012, THE BRITISH GOVERNMENT FINALLY INSTITUTED ITS OWN CAMPAIGN MEDAL, BUT THE RECOGNITION CAME TOO LATE FOR SOME OF THE VETERANS



Convoy crewmen in 1942. Soviet gratitude to the veterans was considerable, with the Russian embassy stating: "The bravery of these men and women will be always remembered and respected"

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GH Bennett is reader in history at the University of Plymouth. His books include *Hitler's Ghost Ships: Graf Spee, Scharnhorst and Disguised Enemy Raiders* (University of Plymouth, 2012)


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EYE OPENER

Standing proud

Two African-American sailors pictured alongside the destroyer escort USS *Mason* at Boston Navy Yard, March 1944. Following pressure from the National Association for the Advancement of Colored People in 1941, the US Navy eventually allowed two vessels (*Mason* and the submarine chaser *PC-1264*) to be crewed almost entirely by African-Americans. Previously, African-Americans were only allowed to serve on ships as cooks and mess stewards.

HOW MIRACULOUS WAS MIDWAY?

The image of plucky American troops slaying a Japanese Goliath has helped make the battle of Midway one of the most feted Allied victories of the Pacific War. But, asks **Evan Mawdsley**, was this maritime clash really the giant-killing of popular perception?

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Under fire

Yorktown sustains a hit during the battle of Midway. The US aircraft carrier sank three days later, but by then the Japanese had accepted that their attempt to land a war-winning blow had failed

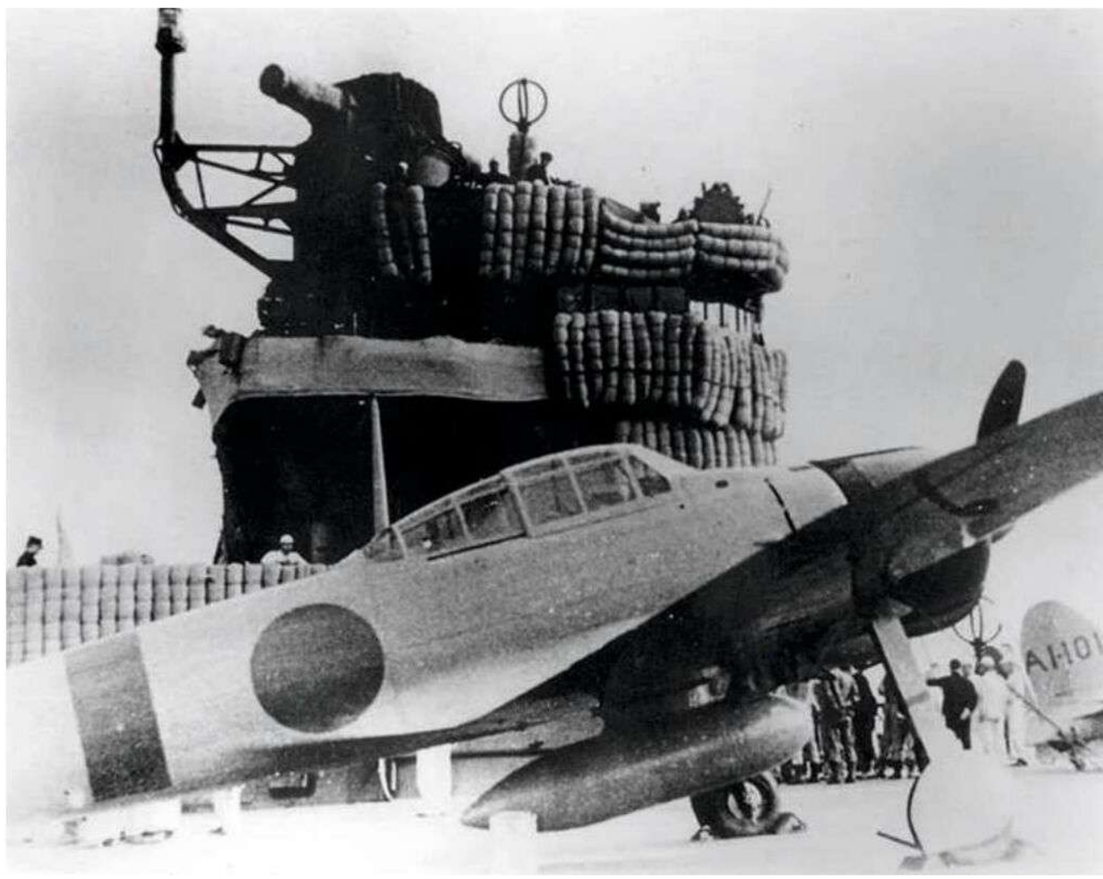
As spring turned to summer in 1942, the Imperial Japanese Navy decided the time had come to strike. At the end of May, virtually the entire navy put to sea, along with a dozen troop transports and a fleet of tankers. It had been tasked with launching an operation that would lure the US Navy to its destruction in a decisive battle. The 'bait' was a place for which America would almost certainly want to fight. This was Midway: a tiny atoll in the central Pacific, but a strategic air base. Its occupation would open the Japanese route to Hawaii and Pearl Harbor, which lay 1,300 miles to the south-east.

If Admiral Isoroku Yamamoto, commander-in-chief of Japan's Combined Fleet, felt confident of victory as the Midway operation got under way, then well he might. The preceding six months had witnessed a string of successes for his navy. On 7 December 1941, it had mounted a devastating surprise attack on the US naval base at Pearl Harbor, destroying two American battleships and badly damaging three more, and it followed this up by destroying the British fleet off Malaya. This one-two combination had helped Japanese armed forces gain effective control of south-east Asia and most of the Pacific Ocean. Malaya, Burma, the Philippines and the Dutch East Indies had all fallen under their control.

But there was a problem. The Japanese may have inflicted heavy losses on the Americans at Pearl Harbor, but they hadn't delivered a knock-out blow. Above all, no US carriers had been at the Hawaiian base on 7 December. The Midway operation was, then, Admiral Yamamoto's attempt to finish off the job his navy had started six months earlier and win the Pacific War.

At the vanguard of the Japanese attack on Midway was the *Kidō Butai* (Mobile Force), the aircraft-carrier task force that had spearheaded the assault on Pearl Harbor. This now boasted two large carriers, *Akagi* and *Kaga*, and two medium-sized ones, *Hiryū* and *Sōryū* – together carrying some 246 planes. In command was Vice Admiral Chūichi Nagumo. "We left the Bungo Channel on 26 May with the overconfidence that if the Mobile Force takes the van[guard], it will take care of everything," wrote Nagumo's chief of staff. However, a second element, the so-called Main Body, also set out across the foggy north Pacific two days later. Here Admiral Yamamoto himself flew his flag aboard the super-battleship *Yamato*.

On the offensive
Chūichi Nagumo (above), commander of the Mobile Force that spearheaded the attack on Midway. That force boasted two large aircraft carriers, including the *Akagi* (right), pictured in 1941



Storming the atoll

If everything went to plan, the Japanese strike on Midway would begin with a series of lightning attacks, catching an unsuspecting American military off guard. The first phase would see Nagumo's planes put the Midway air base out of action courtesy of surprise air raids beginning on Thursday 4 June. These would pave the way for a transport force of 5,000 men storming the atoll on the morning of 7 June. With the American fleet moored in its Pearl Harbor base four days' steaming away, it would – so Yamamoto reasoned – be utterly incapable of mounting a rapid response.

At first, aboard the Japanese flagships, everything seemed to be going to plan. US Navy patrol planes from Midway *did* locate parts of the transport force coming from the west – some 700 miles out – on the morning of 3 June. But Nagumo's carriers kept safely hidden. Then, after a high-speed approach which took place that night, his four ships began launching 121 aircraft – half their total strength – against Midway. At the same time, Japanese planes started scouting the perimeter around the Mobile Force. Their task was to confirm that, as expected, no enemy ships were lurking nearby.

When the air armada reached Midway at 6.30am on 4 June, defending American planes soon fell to the veteran Japanese fighter pilots. But the airfield was not put out of action, and the formation leader radioed the *Akagi* with a code message urging a

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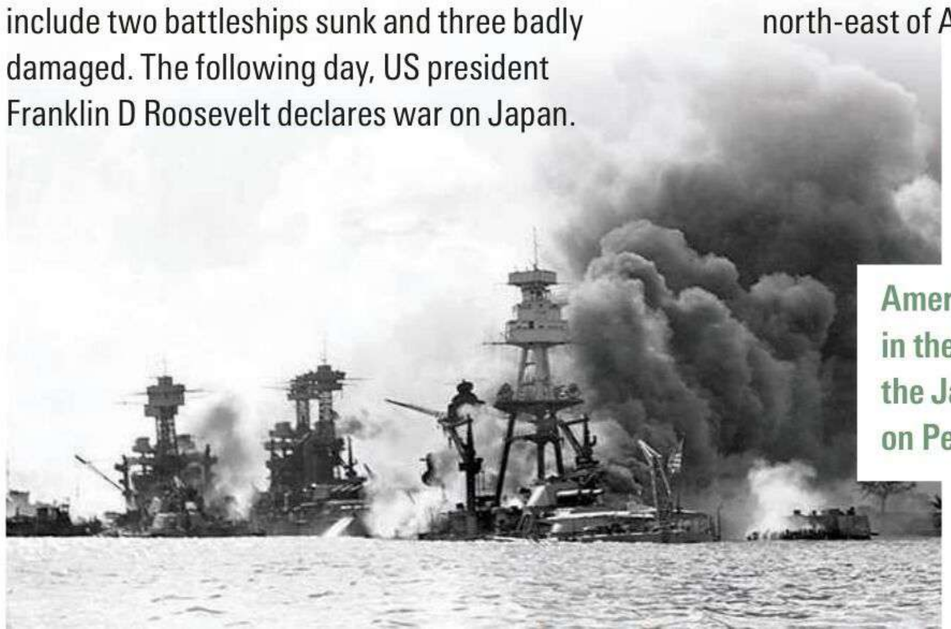
TIMELINE **The countdown to Midway**

7 December 1941
Carriers of the *Kidō Butai* (Mobile Force) of the Japanese Combined Fleet, under Admiral Nagumo, launch a **surprise attack on Pearl Harbor** in the Hawaiian Islands. American losses include two battleships sunk and three badly damaged. The following day, US president Franklin D Roosevelt declares war on Japan.



American ships burn in the aftermath of the Japanese attack on Pearl Harbor

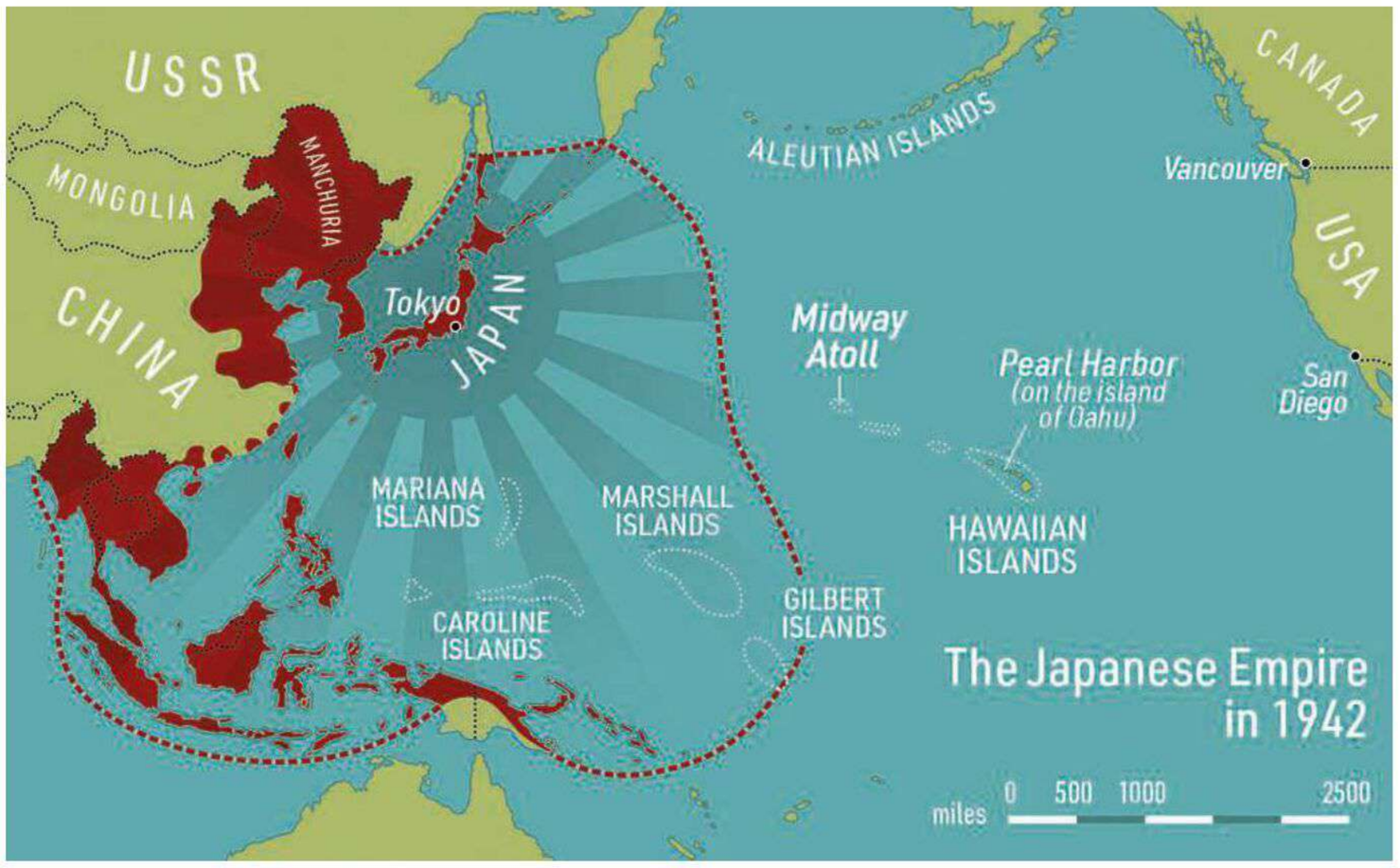
20 January 1942
The Mobile Force raids Rabaul, New Guinea, enabling the Japanese to establish a major base north-east of Australia.

19 February
The Mobile Force raids Darwin, northern Australia, supporting the final Japanese conquest of the Dutch East Indies.

3–5 April
The Japanese Naval General Staff approves **Admiral Yamamoto's plan to invade Midway Island**. The aim is to lure the American fleet out for a decisive battle and then destroy it.

Admiral Yamamoto, the architect of Japan's attack on Midway

5–8 April
The Mobile Force raids Ceylon (Sri Lanka), sinking a British aircraft carrier and two cruisers.



Rapid expansion By mid-1942, the Japanese had seized control of much of south-east Asia and the Pacific Ocean (shown on map). But it was at Midway that they planned to secure a decisive victory over the Americans

MAP: PAUL HEWITT–BATTLEFIELD DESIGN/GETTY IMAGES

second strike: "KAWA KAWA KAWA 0700." A quarter of an hour later, Admiral Nagumo concurred. He had a reserve of aircraft (half his total strength) equipped with bombs and torpedoes, ready for the unlikely event that enemy ships were encountered. Now they were ordered to rearm with ground-attack bombs for a second strike on the atoll.

It was at this moment, though, that Nagumo began to lose control of the situation. At 7.40am a search plane assigned to patrol due east of the Mobile Force suddenly relayed an alarming message: "Sight what appears to be 10 enemy surface units, in position bearing 10 degrees distance 240 miles from Midway." This was 200 miles to the east in an area of sea supposed to be empty of all American vessels. An early encounter with the enemy fleet, once an unlikely possibility, now loomed as a real threat. Within 30 minutes, the search plane had even worse news for Nagumo: the enemy force included a carrier.

THE JAPANESE SOUGHT TO LURE THE US NAVY INTO A BATTLE THAT WOULD WIN THE PACIFIC WAR

In launching his attack on Midway, Yamamoto had sought to lure the Americans into a trap. But, in fact, it was the Japanese fleet that was steaming into an ambush. For, by 25 May, American codebreakers had cracked the radio messages detailing Yamamoto's plans for the Midway operation. As a result, the Americans knew Japanese objectives, the identities of most of the ships involved in the attack and their departure dates.

And so, while Yamamoto believed the two American carrier task forces were holed up in their Pearl Harbor base four days away, they were instead in position north of Midway, ready to spring a trap. "The situation is developing as expected," Admiral Chester Nimitz, in overall command of all operations, reassured his senior admirals late on the eve of the battle. "Carriers, our most important objective should soon be located. Tomorrow may be the day you can give them the works."

Dodging torpedoes

As the American fleet closed in, bombers from the Midway air base launched an attack on the Mobile Force. The attackers, a motley collection of US army, navy and marine bombers, met heavy opposition from the fighters of the Japanese combat air patrol (CAP) over the Mobile Fleet. They failed to achieve any hits, but the ships under attack had to manoeuvre violently to dodge torpedoes and bombs. This, coupled with the need to launch and land CAP fighters, meant that the Japanese were unable to rearm the reserve force yet again and send it off – this time against the recently sighted US ships.

At about 9.20am, a new American air attack on the Mobile Force began. This time, the Japanese faced torpedo planes – not from Midway, but from the shadowy fleet to the east. However, being slow and forced to fly at low altitude, the US planes were all but wiped out before they'd achieved any hits. Still, Nagumo was unable to launch his strike force.

But if the first two waves of American air attacks inflicted little damage on the Japanese fleet, the same couldn't be said for the third. Shortly after being sighted by Japanese

18 April
US Army bombers raid Tokyo and other Japanese cities. They are launched from the carrier *Hornet*.

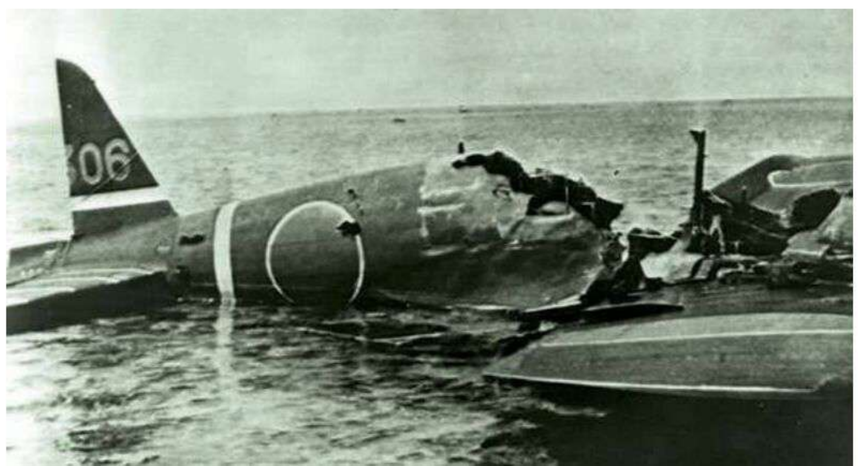
7–8 May
Battle of the Coral Sea. This conflict takes place between Japanese and US carriers in the South Pacific. An Allied fleet, alerted by codebreaking, blocks the invasion of Port Moresby in New Guinea. Each side loses a carrier, and two of the Mobile Force's carriers are unable to take part in the Midway expedition.

20 May
American codebreakers tell Admiral Nimitz that a **major operation is intended against Midway**, providing details of most forces involved and timings.

26–28 May
Most of the Combined Fleet leaves Japan for the operations at Midway and in the Aleutian Islands (south-west of Alaska).

3 June
Two Japanese carriers raid **Dutch Harbor in the Aleutian Islands**.

4 June
The battle of Midway. American carriers ambush the Mobile Force north of Midway Island, preventing an invasion and destroying the Mobile Force. Carrier *Yorktown* is damaged and sinks on 7 June.



A Japanese plane shot down in the battle of the Coral Sea

All but wiped out TBD-1 torpedo bombers on the USS *Enterprise* prepare to attack Japanese aircraft carriers at Midway. Ten of the 14 aircraft involved in the operation would be destroyed

lookouts at 10.22am, squadrons of SBD 'Dauntless' dive bombers began targeting the enemy carriers below; what they did next would change the course of the battle. An American fighter pilot escorting the torpedo planes later described the scene: "Then I saw this glint in the sun, and it looked just like a beautiful silver waterfall; these dive bombers coming down. [The defending Japanese fighters] weren't anywhere near the altitude [that] the dive bombers were. I'd never seen such superb dive bombing."

The four Japanese carriers were some distance from one another, but the Dauntless bombs hit *Kaga*, *Akagi*, and *Sōryū* in rapid succession. In their hangar decks, planes, fuel and unsecured bombs and other weaponry turned the big ships into firetraps. None of the vessels sank immediately, but they were quickly ablaze, incapable of operating planes. One of the senior air staff officers aboard the *Akagi* recalled the carnage: "Smoke from the burning hangar gushed through passageways and into the bridge and ready room... Climbing back to the bridge, I could see that *Kaga* and *Sōryū* had also been hit and were giving off heavy columns of black smoke. The scene was horrible to behold." The *Sōryū* crew began to abandon ship within 20 minutes. At 10.47am, Nagumo and his staff finally fled the burning *Akagi*.

The American ambush fleet was divided into two groups: Rear Admiral Spruance's Task Force (TF) 16, with carriers *Enterprise* and *Hornet*, and Rear Admiral Fletcher's TF 17, with *Yorktown*. At about 12.30pm, and again two hours later, *Yorktown* was seriously damaged by dive bombers and torpedo bombers launched from *Hiryū*; the American carrier sank on Sunday 7 June. *Hiryū* herself was wrecked by another American attack in the late afternoon of 4 June and foundered during the night. But these later exchanges did little to alter the outcome of the battle. By the time *Hiryū* disappeared beneath the waves, Yamamoto had accepted that his decisive, war-winning clash had ended in defeat and opted to set course with his fleet back to Japan. As his chief of staff noted in his diary: "We are now forced to do our utmost to cope with the worst case. This should be kept in mind as a lesson showing that war is not predictable."

PLANES, FUEL, UNSECURED BOMBS AND OTHER WEAPONRY TURNED THE JAPANESE CARRIERS INTO FIRETRAPS

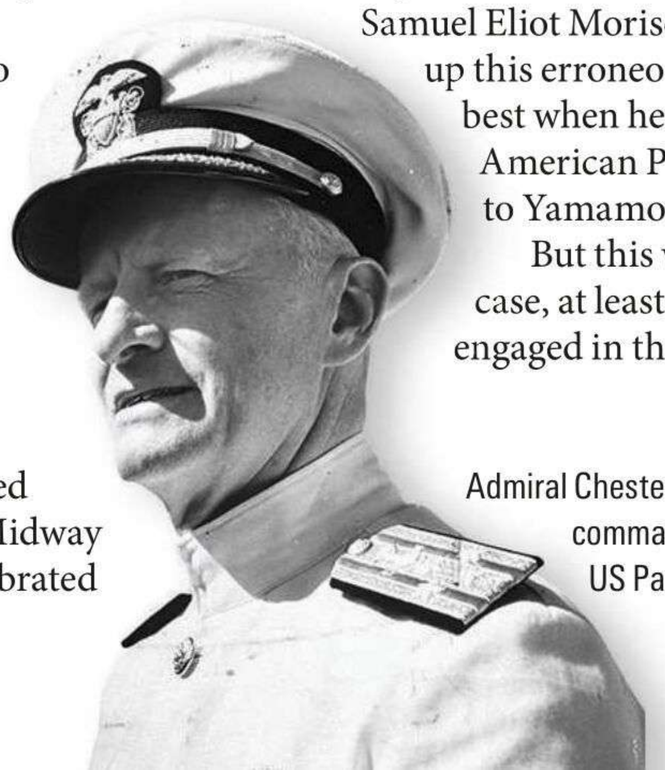
Terrible odds?

Seventy-eight years after Admiral Yamamoto's battered fleet limped back to Japan, Midway remains one of the most celebrated American victories of the Second World War. Yet in some ways, it is also one of the most misunderstood: just as the Japanese carriers fell prey to Dauntless dive bombers in the waters of the Pacific, so too have modern perceptions of this naval clash succumbed to myths.

Among the most prevalent of these misconceptions is the assertion that the US Pacific Fleet defied terrible odds to defeat an overwhelming enemy. Classic histories of the battle – with titles such as *Incredible Victory* and *Miracle at Midway* – have merely fanned the flames. The historian Samuel Eliot Morison perhaps summed up this erroneous school of thought best when he described the American Pacific fleet as "a David to Yamamoto's Goliath".

But this was simply not the case, at least as far as the two fleets engaged in the main battle north-west of Midway were concerned. The four Japanese carriers in the Mobile Force were only slightly superior to the three (larger) American carriers; Admiral Nagumo had 246 carrier planes at his disposal, compared to the 233 available to the US fleet. The Americans also had the advantage of 99 combat aircraft based at Midway itself, while the Japanese fatally divided their attention between Midway and a possible threat from US carriers.

According to the 'Miracle at Midway' myth, it wasn't just the size of the Japanese fleet that made it such a formidable foe, but the quality of its leaders. One of the masterminds behind the attack on Pearl Harbor, Admiral Yamamoto, has been widely portrayed as a gifted fleet commander. But many of his decisions before and during the battle of Midway suggest otherwise. In May, he allowed the Mobile Force to be dispersed when he sent the *Shōkaku* and *Zuikaku*, his most modern carriers, to the South Pacific. There they suffered ship damage and aircraft loss in the battle of the Coral Sea, making them unavailable at Midway.



Admiral Chester Nimitz, commander of the US Pacific Fleet

A lack of firepower

More questions concerning Japanese decision-making are raised by the fact that the Midway assault was timed to coincide with another major operation – against American islands in the Aleutians, south-west of Alaska – so denying Admiral Nagumo's spearhead more valuable firepower. Japanese intelligence about American activity during the battle was also badly coordinated, exemplified by Yamamoto's failure to give Nagumo critical information.

Another myth that stalks popular perceptions of the battle of Midway is that the Americans simply got lucky. True,

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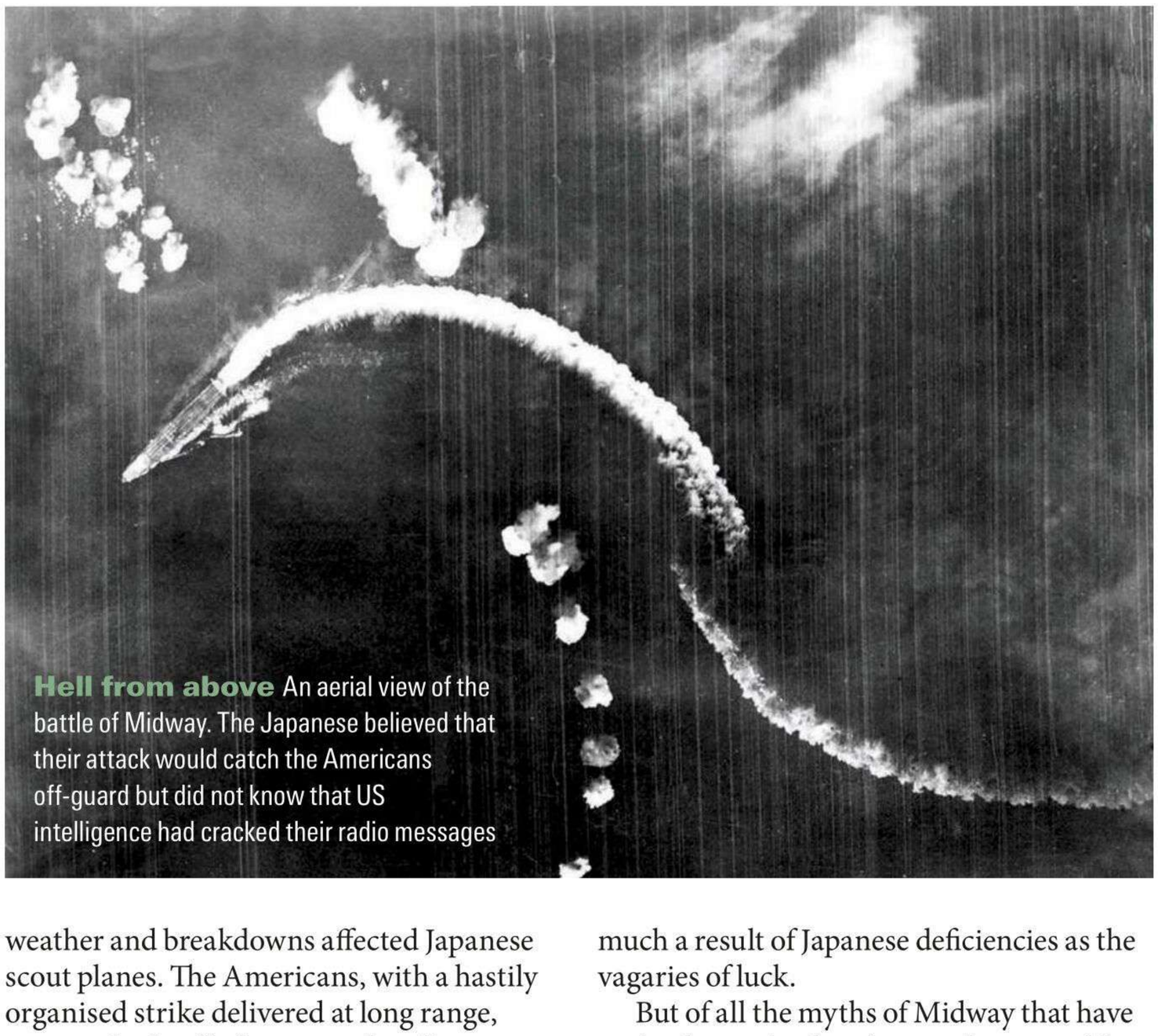
Living to tell the tale Survivors of *Yorktown* register on board USS *Fulton*, after the aircraft carrier was fatally damaged by Japanese bombers at Midway



Hell from above An aerial view of the battle of Midway. The Japanese believed that their attack would catch the Americans off-guard but did not know that US intelligence had cracked their radio messages

AKG IMAGES/GETTY IMAGES/TOPFOTO

War-winning development
The California Shipbuilding Corporation celebrates launching five ships in five days, January 1943. Japan had no answer to US industrial might

weather and breakdowns affected Japanese scout planes. The Americans, with a hastily organised strike delivered at long range, were undoubtedly fortunate that dive bombers from different carriers arrived over the Mobile Force at the same moment. In short, with small but evenly matched forces, vulnerable target ships, reliance on visual observation rather than radar and unpredictable weather conditions, it's not impossible to imagine a scenario in which the battle ended as a draw, or even an American defeat. Yet it didn't, and that very fact is every bit as much a result of Japanese deficiencies as the vagaries of luck.

But of all the myths of Midway that have evolved over the decades, one has arguably shaped popular perceptions of the battle more than any other: the idea that Midway was a major turning-point, one that changed irrevocably the course of the Pacific War.

One of the main drivers of this perception is the claim that Midway destroyed the Japanese carrier fleet. Again, that's simply not the case. *Shōkaku* and *Zuikaku* were soon available once more, as were the four smaller carriers that had not been with the Mobile Force. Another medium-sized converted carrier was nearing readiness, and many of the aircrew at Midway survived the carrier sinkings. In fact, at the battle of the Santa Cruz Islands in October 1942, the Japanese assembled a carrier fleet more powerful than that of the Americans.

And let's not forget that the Americans themselves sustained significant losses in this first period of the Pacific War. They lost a large carrier at the battle of the Coral Sea, *Yorktown* at Midway and two more large carriers in the Guadalcanal area (one to a submarine in September and another to carrier attacks). Indeed, in early 1943, Nimitz had just one large carrier at his disposal; so scant were American resources that HMS *Victorious* had to be sent to the Pacific as a reinforcement.

But the cupboard wouldn't remain bare for long. By the autumn of 1943, new carriers began to arrive from American shipyards, and it was these vessels that would power the Americans to victory in the Pacific in 1945. The Japanese navy may have survived its bloody nose at Midway, but it had no effective carrier replacement programme. So, when the US brought its awesome industrial capacity to bear, Japan was overwhelmed. For all the attention paid to the 'miraculous' events of 4 June 1942, the Americans' ability to produce new vessels at an unprecedented speed was the true war-winning development – and that would have occurred whatever the outcome at Midway. H

Evan Mawdsley is an honorary professorial research fellow at the University of Glasgow. The paperback edition of his book *The War for the Seas: A Maritime History of World War II* was recently published by Yale University Press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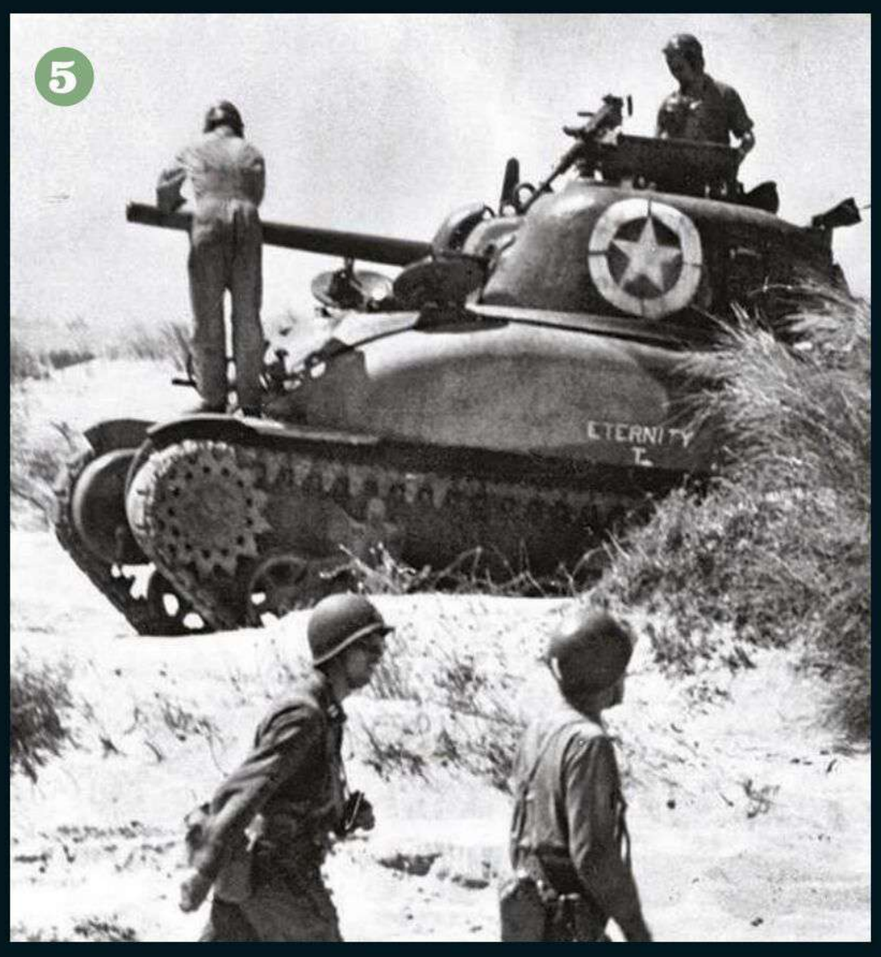
SCRAMBLE FOR SICILY

Emboldened after recent victories in north Africa, the Allies believed that invading Sicily would prove crucial to wresting Europe from Axis control. But infighting risked jeopardising the mission before it could begin, says **Gavin Mortimer**



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1 Machinations of war Delegates of the Allied Planning Conference in Algiers cluster around its leader, Winston Churchill, on 4 June 1943

2 Line of destruction A row of tanks in La Pecherie, Tunisia, ready to be placed on vessels bound for Sicily on 7 July 1943

3 Leap of faith US paratroopers jump from a Douglas C-47 skytrain above Sicily just after midnight on 9–10 July 1943

4 Zero hour Infantry from the 51st Highland Division disembark from their Landing Ship Infantry (LSI) and wade onto Sicilian shores on 10 July

5 Rough entry The crew of a US Sherman tank inspect their vehicle for damage as they prepare for the push inland

6 Death stare The Sicilian city of Licata, on the island's southern coast, comes in range of a US destroyer's 40mm Bofors gun

7 Talking tactics General George Patton (left) discusses strategy with Lieutenant Colonel Lyle Bernard near the village of Brolo, west of Messina

8 Liberating feeling Locals celebrate in Milan after Mussolini's regime falls on 25 July 1943 – a fortnight after the Allied invasion of Sicily began

GETTY IMAGES/ALAMY

As darkness fell on 9 July 1943, 3,405 American paratroopers of the 505th Infantry Regiment, 82nd Airborne Division, were crammed into 266 C-47 transport planes, soaring over Tunisia as they prepared to assault Sicily from above. The stench of sweat and anticipation laced the air: this would be the US's first wartime foray into Europe.

It was only that morning that the paratroopers had received word, in the form of a letter from their commanding officer, Colonel James Gavin, that they would be flying from Africa to the Italian island in a few short hours. "Tonight you embark upon a combat mission for which our people and the free people of the world have been waiting for two years," the missive declared. "Let us carry the fight to the enemy and make the American parachutist feared and respected through all his ranks... Good landing, good flight and good luck."

Gavin was flying alongside his men, and on board his aircraft was war correspondent John 'Beaver' Thompson. In truth, the airborne commander doubted the wisdom of allowing a journalist to parachute into a war zone, but he also appreciated the worth of giving ordinary Americans a glimpse into this momentous mission.

The flight was rough. Although it was only 250 miles as the crow flies to their target, the men were subjected to a stomach-churning, circuitous route in a bid to avoid enemy radio direction finders. Crosswinds of 35mph also broke up the formation, and several aircraft were forced to turn back after losing their way. But not Gavin's. The colonel was first to jump, but upon landing he discovered they were 20 miles east of the drop zone: a rugged area north of Gela on the southern shore of Sicily, where the infantry would be landing.

Thompson was also down but nursing three cracked ribs and a wrenched knee. However, this was nothing compared to the pain of having lost his typewriter on his descent. Suddenly, he saw Staff Sergeant Robert Gillette striding towards him with an object clutched to his chest. "Where in the hell did you get my typewriter?" exclaimed an overjoyed Thompson.

Deciding to strike

The Sicilian operation was the culmination of months of Allied planning – and arguing. In January 1943, British prime minister Winston Churchill and US president Franklin D Roosevelt had met with their combined chiefs of staff in Casablanca, Morocco, to discuss the next phase of the war. The North Africa campaign was not finished, but defeating the Axis was inevitable. The question was: where to strike next?

Ready to pounce British troops sit in a Horsa glider on 1 July 1943, a week before the Allies invaded Sicily. Their use of gliders during the invasion was not very successful, says Gavin Mortimer

Since early 1942 the Americans had favoured an assault on France, but the British refused to consider such an idea until the Germans had been sufficiently weakened elsewhere. They agreed with Roosevelt that the Allies had to attack in Europe but could not settle on an exact target.

Eventually Sicily was chosen, and a swift strike into Italy would be mounted thereafter. It was hoped this would trigger Italy's surrender, and simultaneously force the Germans to pour tens of thousands of troops south from Russia and France to desperately defend what Churchill called the "soft underbelly of Europe".

A SWIFT STRIKE INTO ITALY WOULD FORCE THE GERMANS TO POUR TENS OF THOUSANDS OF TROOPS INTO THE "SOFT UNDERBELLY OF EUROPE"

Supreme command of the Allied invasion force was given to Eisenhower, while Britain's General Harold Alexander would act as his deputy and take charge of the detailed planning that the mission – code-named Operation Husky – required. The 15th Army Group (including the US 7th Army under General George Patton and the British 8th Army, commanded by General Bernard Montgomery) that Alexander directed would also play a key role in the assault.

The first fortnight of July was earmarked as the most promising invasion date, so the Allies had much to organise in six months. Regiments had to be shipped over from America and Britain; soldiers required training in amphibious warfare; north African ports needed to be selected and prepared; ships and landing craft assembled; and, most importantly of all, secrecy had to be maintained to deceive the Germans as to the true target (see box opposite).

Crucially, Britain's Special Air Service (SAS) underwent a rigorous training programme to transform them from the guerrilla raiders of north Africa into an amphibious unit. They would form part of the (largely British) Eastern Task Force, which would target the south-east corner of Sicily, seizing airfields, ports and bridges. Then, once Allied fighter aircraft were flown in, they would advance north up the coast, eventually taking Messina – a port that was 2 miles from the toe of the Italian mainland. The Western Task Force was American and

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Race to Messina After landing on Sicily's southern coast, both Montgomery's Eastern Task Force and Patton's Western Task Force tackled rough terrain as they ventured towards the 'toe' of the Italian mainland

would land on the southern side of Sicily's western corner.

During the planning of the invasion, one British general, Sir Alan Brooke, estimated that Sicily could be taken in six weeks. However, Eisenhower wasn't so sure; he doubted the fighting spirit of the 275,000 Italian defenders but anticipated fierce resistance from the 75,000 Germans. The island's topography could also pose problems. The Eastern Task Force would come ashore on narrow beaches with soft sand: a troublesome location for landing tanks. And once they started advancing north, they would be confronted by rugged terrain, as well as the active volcano, Mount Etna.

The invasion begins

The SAS landing craft hit the beach at Capo Murro di Porco (Cape of the Pig's Snout) in the south-east corner of Sicily at 3.15am on 10 July. Their mission was to silence the four guns of a nearby coastal battery. "We landed, got up the cliff and [into] the area where the gun had barbed wire round it, and I got there first and we cut the wire," recalled Lieutenant Johnny Wiseman, who received a Military Cross for his valour. "We went through a gap I'd cut in the wire, and my troop took the first gun without any bother."

All four guns were dynamited, and the SAS sent a rocket into the dawn sky to signal to the main Eastern Task Force that the coast was clear. "The great fleet, just visible on the horizon, began to steam slowly toward shore," recalled SAS officer Peter Davis, whose attention was then drawn to "a number of small black patches floating on the surface of the sea". For a few moments the SAS squinted to see what they were, before it dawned on them that they were actually the "battered hulks of our gliders".

The British 1st Air Landing Brigade had set off for the east coast of Sicily two hours before the 82nd Airborne Division took to the air. In a fleet of 134 gliders towed by American C-47 tug planes, the British force was tasked with seizing the Ponte Grande, a stone bridge south of Syracuse. But as the C-47s approached the Sicilian coast, they came under fire; panicking, many pilots released their gliders too early. Dozens came to earth miles from the bridge, while 47 ditched into the sea, including the one containing Sergeant George Brown, a non-swimmer. "I thought we'd made land, then I realised that the sea was pouring in," he recalled. Brown and his comrades scrambled out of the four escape holes in the glider's roof. "It was then I noticed how close we were to land. 'Must be Sicily', I thought. 'And only a mile or two away.'"

Brown was one of the lucky ones: his glider didn't sink, and he was able to cling to the hulk until he was rescued six hours later. Just 12 gliders landed near the Ponte Grande bridge, and of those men only 83 were fit enough to press on to the target, which they remarkably managed to seize and hold until advance elements of the seaborne invasion force reached them.

Meanwhile, Colonel James Gavin and what few men he could muster in the hills above the beach at Gela could do little to help their comrades in the 45th Infantry Division, who had started coming ashore. "We had to get off [our landing craft] about 40, 50 yards from shore and wade in," remembered Raymond Kellogg, one of the men in the sea. "They

MAP: PAUL HEWITT-BATTLEFIELD DESIGN/WIKIMEDIA COMMONS

OPERATION MINCEMEAT

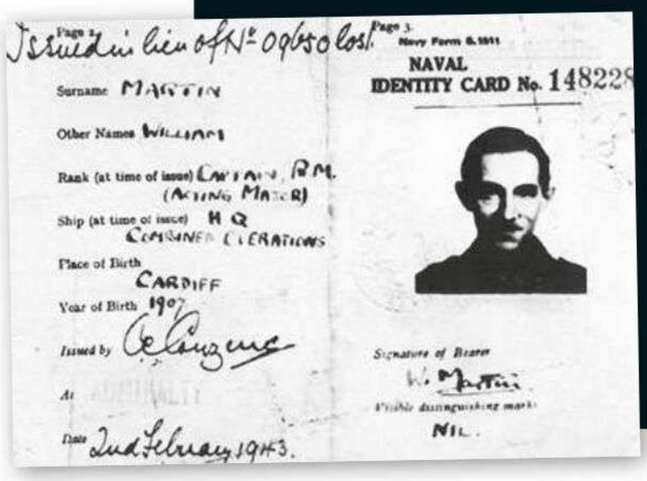
The Allies' grisly plot to dupe the Germans

With Sicily being the real destination, the Allies wanted to fool the Germans into believing their target was actually Greece. Operation Mincemeat was crucial to this deception: a macabre but masterly plot that involved disguising the corpse of a 34-year-old man who had ingested rat poison as the fictitious Major William Martin of the Royal Marines.

Packing the cadaver in a dry ice container, MI5 assembled all the accoutrements one would expect a man of Martin's importance to possess, including a black leather briefcase. Inside was a letter from Chief of Combined Operations Lord Louis Mountbatten, extolling Martin's knowledge of landing assault craft, and another from General Archie Nye to General Harold Alexander, in which Nye alluded to the main attack against Greece as well as a diversionary assault on Sicily. There were also several personal items, including a photograph of a sweetheart and a ticket stub from a theatre production.

On 30 April, a British submarine placed the body off the Spanish Atlantic coast, and the plan worked perfectly. The corpse washed up and was brought ashore, but before it was handed to the British naval attaché in neutral (but German-friendly) Madrid on 13 May, the German intelligence service photographed the contents of the briefcase. Consequently, Hitler ordered the transfer of the 1st Panzer Division from France to Greece, and the redeployment of a fleet of torpedo boats from Sicily to Greece.

Sadly, it wasn't until 1998 that Major Martin was revealed to be Glyndwr Michael – a Welsh drifter with no family or friends.



The ID card of 'Major William Martin' – part of a plot to feed the enemy false information

Warm welcome A local resident offers Allied troops a jug of wine in the coastal town of Gela. "The Italians were so happy to surrender," recalled one former US soldier

Hasty retreat
Pionierlandungsboot (pioneer landing craft) *PiLB 405* carrying German troops lands on the Calabrian coast, 16 August 1943. Thousands fled to mainland Italy

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were shooting at us while we were wading in, and mortars [were being fired at us]; that was our first taste of seeing what mortars could do."

However, the 45th Infantry Division swiftly overran the Italian defenders at Gela and moved inland, as did their comrades in the 3rd Infantry Division at Licata, 20 miles west. "The Italians were so happy to surrender," remembered Kellogg. "I'll bet there was 6,000 to 8,000 of them probably in that field... We had to circle them and guard them and keep them contained, but they weren't going anywhere." In total, the Americans took 18,000 prisoners in the first three days of the invasion.

Hampered progress

The SAS, too, appreciated the passivity of the Italians as they moved north from Capo Murro di Porco towards the port of Augusta. But here they encountered the Germans, and it wasn't until 14 July that the enemy withdrew north after a fierce fight. The 1st Canadian Infantry Division also ran into ferocious German resistance as they advanced north towards Agira.

On the eastern flank of the Canadians, the progress had been even slower, and the 1st Parachute Brigade was despatched on 14 July to capture a strategically important bridge at Primosole across the Simeto river. The battle for the bridge raged for two days, and among the British regiments that joined the fray was the 9th Durham Light Infantry. "Soon the river ran red, literally, with the blood of the Durhams," recalled Private Ernest Kerans. "Some did reach the other side, scrambled up the bank and engaged the enemy in hand-to-hand fighting."

Although the bridge was finally taken, the Allies knew that between them and Messina, in the north-east corner of the island, lay the bulk of the German troops. The last two weeks of July were used to bring in reinforcements and fresh supplies, as well as to reassess the Allies' strategy. On 17 July Patton flew to Africa for a conference with Alexander, where it was decided that the US 7th Army should be given greater autonomy, despite Montgomery's protests. Five days later, after a rapier thrust north, the Americans accepted the surrender of Palermo, and on 23 July the western half of Sicily – along with 40,000 prisoners – belonged to Patton. The Italian army was demoralised, and on 25 July Mussolini was deposed and replaced by Marshal Pietro Badoglio.

By now John Thompson had returned to north Africa and filed his copy, which was published in several American newspapers. "It is now becoming a common sight to see housewives sweeping pictures of Mussolini into the street with many a heartfelt sweep of the broom as the Duce's face went down the gutter," he wrote.

Italian resistance may have followed portraits of Mussolini into the gutter, but the Germans were still holding out in the north-east of Sicily. The rapid success of the 7th Army allowed them to head east and link up with Montgomery's 8th Army in a decisive offensive against the Germans. It began on 1 August and ended 16 days later, as the Allies raced each other to Messina. "By 10 o'clock Messina was entered," said Lieutenant Joseph Nicoll of No 2 Commando. "But much to the impotent anger of the Commando, the Americans were there first, having come along the north coast road."

Impressively, Sicily had been liberated in just 38 days. But nearly 40,000 Germans had escaped to Italy, taking with them 9,000 vehicles and nearly 12,000 tonnes of stores. "We learnt a great deal in Sicily," remarked Montgomery in his memoirs. "In some cases, possibly all that was learnt was how not to do certain things."

Chief among the lessons learned was their mistake in planning one major operation while one was still ongoing (in this case, the North African campaign). Commanders had not been fully focused on Sicily, and, spread out at their HQs across north Africa, they had communicated by telegram rather than in person. Poor inter-service coordination was also rife, and this was the principal cause of the disaster on 11 July, when 318 Americans of the 82nd Airborne Division were killed by their own naval guns, who mistook them for Germans as they approached Sicily to reinforce Gavin's men. There was enmity between Montgomery and Patton, too, and it left the former pessimistic about the war's future.

These issues were felt to varying extents throughout the war. Over dinner with Eisenhower in late 1943, Montgomery agreed to a £5 wager on when Hitler would be defeated. The American general was confident the war would be won before Christmas 1944, but Montgomery believed it would be later, citing Anglo-American rivalries and inter-service jealousies. On 26 December 1944, Montgomery received a £5 note from Eisenhower. H

Grand plans Major General Geoffrey Keyes, General Bernard Montgomery and General George Patton (L–R) study a map of Sicily on 3 September 1943

ITALIAN RESISTANCE MAY HAVE FOLLOWED PORTRAITS OF MUSSOLINI INTO THE GUTTER, BUT THE GERMANS WERE STILL HOLDING OUT IN NORTH-EAST SICILY

Gavin Mortimer is a historian and author. His books include *The Men Who Made the SAS* (Constable, 2015) and *Guidance from the Greatest Generation* (Constable, 2020)

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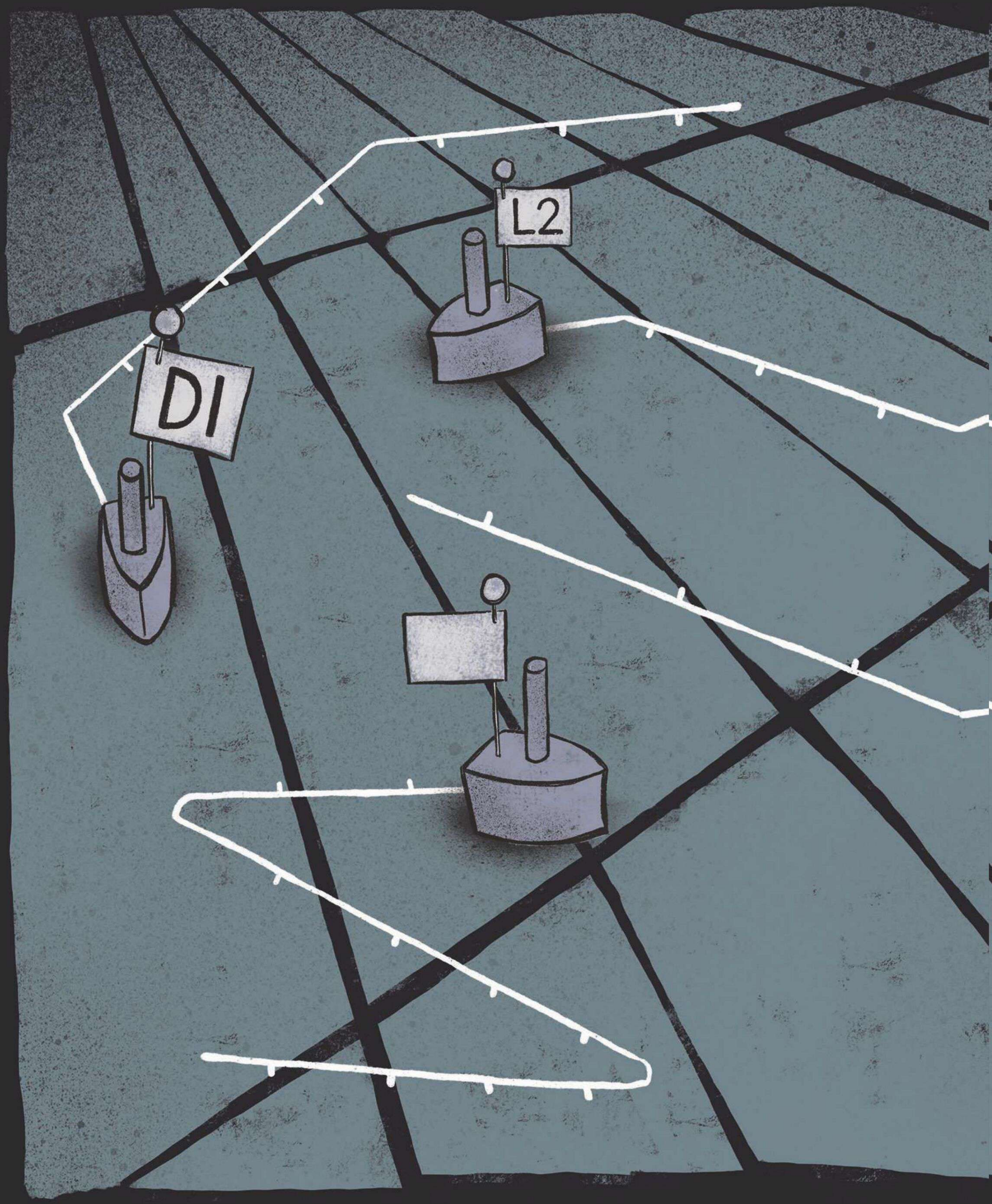
PART THREE
TURNING THE TIDE

“The Imperial Navy had been constantly on the back foot, reacting belatedly and ineffectively to a maritime blitzkrieg”

NHHC, 80-G-236836-NARA

Crew members stencil Rising Sun flags onto the side of USS *Lexington*, each one representing Japanese aircraft shot down during the battle of the Philippine Sea, June 1944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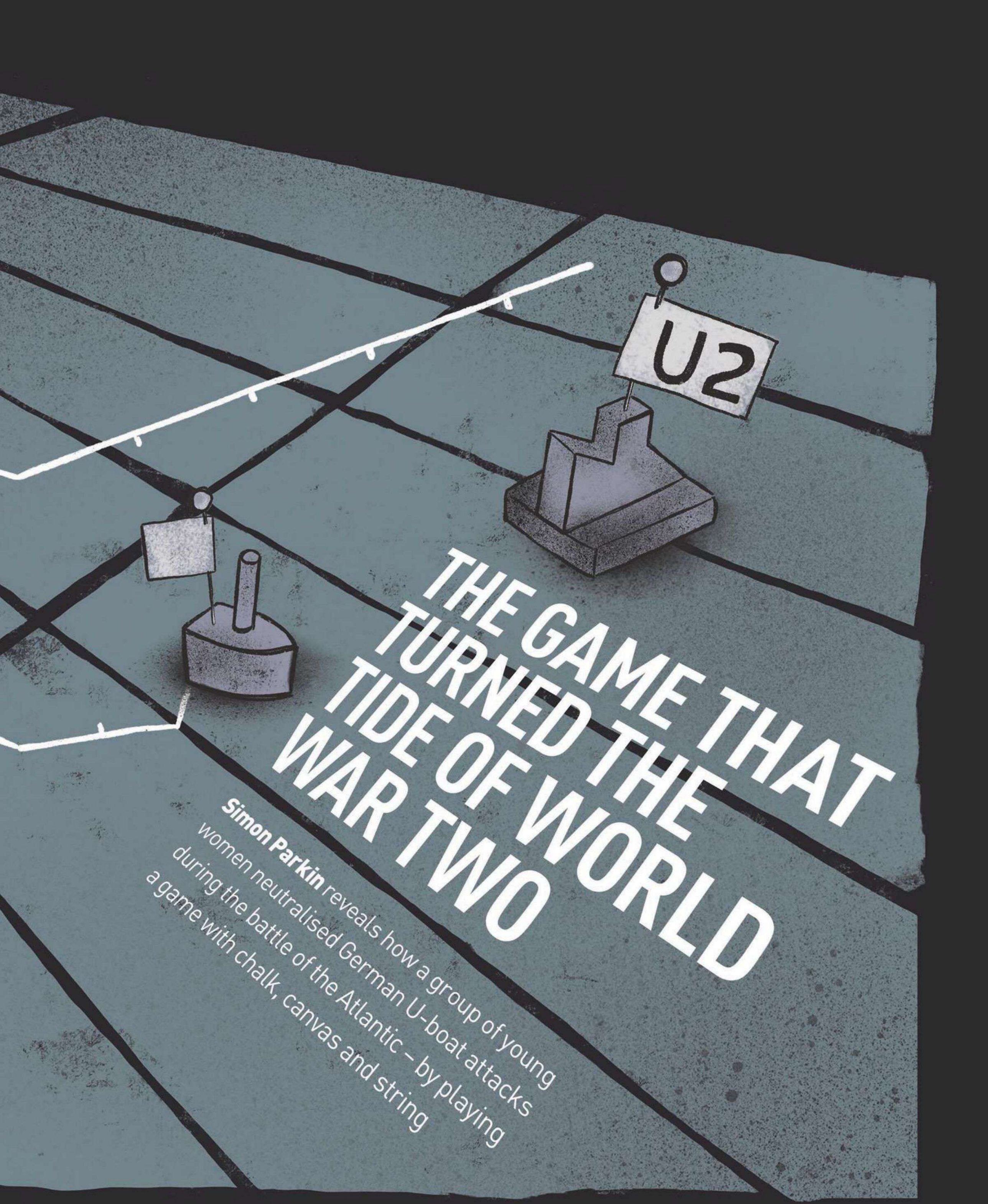

THE GAME THAT TURNED THE TIDE OF WORLD WAR TWO

Simon Parkin reveals how a group of young women neutralised German U-boat attacks during the battle of the Atlantic – by playing a game with chalk, canvas and string

ILLUSTRATION BY **SCOTT MCINTOSH**

Sea wall
A Wren marks the positions of Allied shipping in the north Atlantic on a wall of the Operations Room in Derby House, headquarters of Western Approaches Command, known to staff as 'The Citadel'

Travelling together
Men stand on the deck of an Allied vessel in a 24-strong transport convoy crossing the north Atlantic. Though escorted by naval ships, more than 2,600 merchant vessels were sunk in the Atlantic during the war

On a cold day early in 1942, a young woman reported to a large but anonymous building located on the banks of the Mersey in Liverpool. The morning began inauspiciously for Janet Okell, aged just 19: on her first day in a new job, she had forgotten her uniform. After her ID cards were examined and her identity confirmed, she passed through gas-blocking mesh curtains into a concrete-encased bunker – and promptly became lost in a warren of sun-forsaken rooms and corridors.

With a gathering sense of dismay she wandered, disorientated, until a passing marine took pity on her and asked who she was here to see. By the time her new boss, Gilbert Roberts, had arrived downstairs to collect her, Okell was in tears. She took his handkerchief, blew her nose – and then set to work on a project that changed the course of one of the longest and most important battles of the Second World War.

The faceless exterior of Derby House today belies its former importance: within its reinforced core sat the command centre from which Britain's war against the U-boats in the Atlantic was orchestrated. Okell had arrived to join the newly formed Western Approaches Tactical Unit (WATU), a select group of 'Wrens' – members of the Women's Royal Naval Service – led by a discharged navy captain tasked with finding out why German U-boats were sinking so many British ships in the Atlantic and how they might be stopped.

The stakes were high. Over the previous two years, Hitler's submarines had sunk hundreds of Allied ships as they carried food and fuel supplies from the United States – Britain's transatlantic lifeline. In 1940, no less than 95 per cent of Britain's fuel came into the country from trading partners and colonies, and 70 per cent of its food supply was imported. Some 68 million tonnes of food and fuel was delivered by a 3,000-strong merchant shipping fleet. Both the British and the Germans knew that if those supply lines were broken, defeat for the British would follow. Prime Minister Winston Churchill described merchant shipping as "at once the stranglehold and the sole foundation of our war strategy".

German U-boats attacked convoys in groups, like packs of wolves circling flocks of sheep. As the losses mounted – 2,603 British merchant ships were sunk over the course of the war in the Atlantic, as well as 175 naval ships – so, too, did Britain's fear of the wolfpacks. By 1941, Churchill had come to believe that the outcome of the entire war rested on the outcome of the battle for the Atlantic and, night by night, that battle was being lost. Someone had to discover what was making the U-boats so effective, and what, if anything, might be done to reverse that success.

Gilbert Roberts had been discharged from the Royal Navy in 1938 while still in his thirties, following a bout of tuberculosis. After recovering from that illness, Roberts found himself adrift, a retired officer with neither ship nor purpose. But in the first week of 1942, he was told to report to the Admiralty offices with an overnight bag. There he met two of the navy's most senior officers, who detailed Britain's ongoing losses in the Atlantic – the extent of which was unknown to most people at the time – and the urgent need to find a solution. Roberts was to take the train to Liverpool and report to Derby House, where he would be given use of a large room on the top floor. From there, he was to take charge of a team of young staff and, using any and every means necessary, solve the U-boat problem.

His task was threefold: discover how the U-boats were operating, develop effective countermeasures and, finally, teach these revolutionary new tactics to every Allied captain who sailed the Atlantic. Before Roberts left London that day, he was led into an office in which was waiting Winston Churchill, who said simply: "Find out what is happening, and sink the U-boats."

A game of consequences

In Liverpool, Roberts was assigned 10 Wrens who had been chosen for their aptitude in mathematics and statistics. Armed with little more than balls of string, sticks of chalk and

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Fatal attack A U-boat crew watches an Allied vessel sink after hitting it with a deck gun, having already torpedoed the ship. In the first two years of the war, U-boat attacks were devastatingly effective

scrolls of canvas, the women set to work designing a game that could closely approximate the chaotic, cat-and-mouse battles being fought a few dozen miles out to sea. With the help of eyewitness reports, they began to restage the Atlantic battles in a game played out on the floor – playful to the casual observer, but in actuality serious work of serious consequence.

The Game, as it was to become known, took over the top floor of the building, which came to look like a cross between a school gym and a child's nursery. The floor was covered in linoleum and divided into painted sectors. On this make-believe ocean, the Wrens moved miniature convoys – model merchant ships and their battleship chaperones – according to directions given by the officers taking part in the exercise. But while the Wrens were permitted a bird's eye view of the play area, the naval captains were allowed only occasional peeks through holes in canvas booths, arranged at the sides of the playing field, positioned precisely to recreate the limitations of visibility at sea.

One Wren would move from table to table, passing useful information between the captains to approximate radio chatter. While each officer was listening to this, another Wren would arrive at his side and pass on urgent information relating to the battle – "ship torpedoed here", "star shell fired there" – compounding the pressure on the increasingly harangued man. Each turn lasted two minutes.

During the post-mortem that followed each game, all of the players would be treated to a bird's eye view of the battle. The officers could at last see the tracks of the U-boats drawn on the floor in green chalk, set against the movements of their own ships drawn in white, and learn from the umpires whether or not they had managed to sink any submarines. Often, the officers would realise that they had made numerous dreadful mistakes during the Game, which might have resulted in the loss of their ships in real combat.

"Make your mistakes here on the oilcloth," said Roberts, "and you won't make them at sea." Lessons were learned, and the officers left emboldened by the experience, ready to put the tactics discussed into practice back at sea.

By repeatedly playing the Game and referencing what they learned against the testimony of returning captains who had survived U-boat attacks, Roberts and his staff began to unpick ways in which the British fleet had misunderstood the U-boats' behaviour and to formulate a set of defensive tactics. One night, after a round of corned beef sandwiches and coffee, the team experienced a eureka moment. The U-boats, they surmised, were not attacking the convoys from a distance, firing their torpedoes between the escort ships toward their targets. Rather, they were quietly slipping beneath and between the battleships at night and creating havoc from within the 'flock', like foxes in a henhouse.

Having exposed this cardinal mistake in British anti-submarine tactics, WATU was able to develop a countermeasure that enabled Royal Navy escort ships to hunt the U-boats based on their suspected hiding place beneath the convoy. Jean Laidlaw, the 21-year-old Wren who handled the statistical analysis, dubbed the operation 'Raspberry' – an expression of contempt aimed at Hitler and his U-boats. Raspberry was a revolutionary tactic, and its impact on the war at sea was immediate.

Over the course of just one month in summer 1942, escort ships sank four times as many U-boats as they had in the previous month – beginning an upward trend that would continue, broadly, for the rest of the year. In the months that followed the

BY 1941, CHURCHILL HAD COME TO BELIEVE THAT THE OUTCOME OF THE ENTIRE WAR RESTED ON THE OUTCOME OF THE BATTLE FOR THE ATLANTIC

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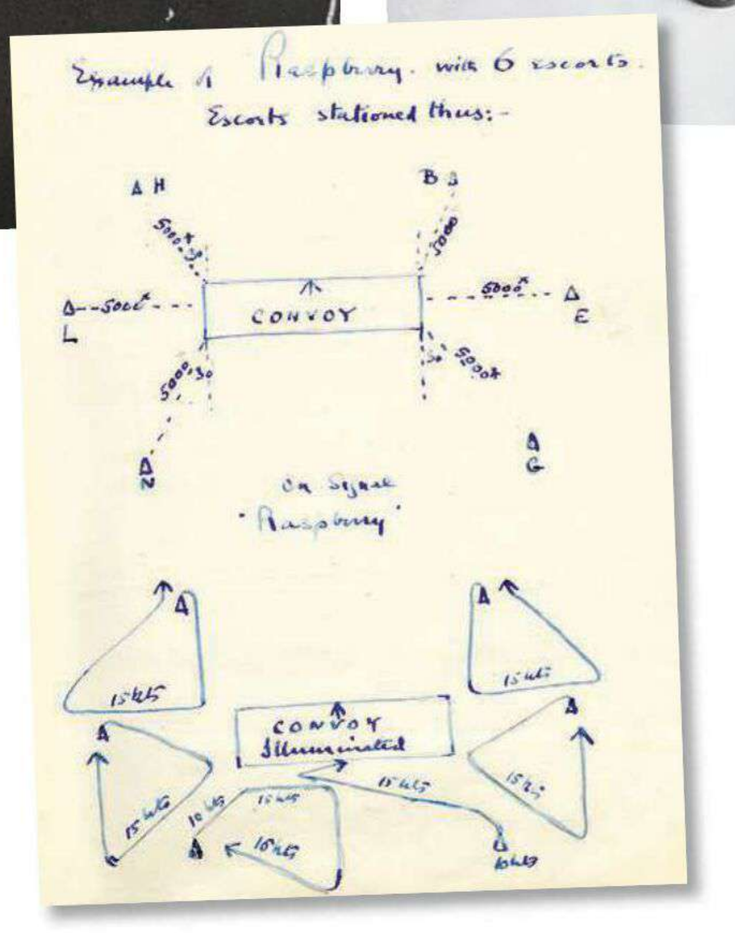
Check mates
The door to the Western Approaches Tactical Unit bears a badge, taken from a decommissioned destroyer, showing a chessboard and the words 'Check Mate'. Here, Wrens and naval officers played a high-stakes game

Model behaviour A Wren ponders anti-U-boat tactics using models and a chart at Derby House. An early strategy thus devised (as sketched, left) was dubbed 'Raspberry'



development of Raspberry, Roberts and his team of Wrens devised numerous other manoeuvres to suit the expanding variety of wolfpack attacks, each given the name of a fruit or vegetable; 'Pineapple', 'Gooseberry' and 'Artichoke' were all part of the Allies' tactical arsenal.

A formidable opponent

Some months after Okell's arrival, she found herself veiled behind a sheet of canvas, peeping through a hole in an attempt to catch a glimpse of a fleet of tiny wooden ships that had been laid out on the floor. However, Okell wasn't challenging a fellow Wren to the Game. On the other side of the room, also absorbed by the ship-shaped counters that were cast adrift on the linoleum sea, stood a man of imposing distinction: Admiral Sir Max Horton.

As a young submarine commander in the First World War, Horton had earned a reputation as an unparalleled terroriser of German ships; indeed, his was the first naval kill of that conflict. On return to port, his habit was to signal a successful kill to cheering onlookers by flying the Jolly Roger – a British naval tradition that has continued into the 21st century.

Horton's precocious talent as a submariner propelled him up the ranks, and his experience burgeoned correspondingly; he was later described as "the greatest authority on submarine warfare".

Okell, in contrast, had never been in a submarine; in fact, she had never been to sea at all. Today, however, there was no timidity. Okell fixed the Admiral – who, from November 1942, was commander-in-chief of Western Approaches (the area of the Atlantic directly west of Britain and Ireland) – with a determined stare. Her objective was straightforward: sink Horton's submarines, hidden from her view, as he slid them around the floor, taking potshots at her ships. Unlike the guessing game Battleship, there was no randomness to her approach. And she was playing not for bragging rights but to prove a point of national importance.

The admiral was sceptical of the game-playing, which he saw as a waste of time in Britain's submarine warfare division when real lives were being lost at sea. ("So what is it that you think you do?" he had quipped when first meeting Roberts.)
By contrast, Okell and her fellow Wrens believed their Game held the secret to defeating Hitler's U-boats. If only she, unfamiliar with the rigmarole of sailing and barely out of her teens, could sink the decorated submarine commander's vessels, then the admiral would be able to see first-hand that their work was anything but a frivolous waste of time.

Now Okell, supported by Jean Laidlaw, was pitting her wits – and, crucially, the

U-BOATS WERE SLIPPING BETWEEN BATTLESHIPS AT NIGHT AND CREATING HAVOC FROM WITHIN THE 'FLOCK', LIKE FOXES IN A HENHOUSE

SCIENCE & SOCIETY PICTURE LIBRARY/ IWM (A 27824)/ NATIONAL ARCHIVES

Floor plan A team of Wrens mark positions of Allied transport ships, their escorts and enemy U-boats on the floor at Derby House. Repeated re-enactments of real battles and 'games' enabled WATU to understand how to hunt German submarines

SCIENCE & SOCIETY PICTURE LIBRARY

Restricted view British naval officers peer through holes in a canvas screen as they observe a reconstruction of a battle scenario at WATU headquarters. The lessons they learned helped them defend against U-boat attacks

WATU team's innovative tactics – against the submarine ace on the game floor. By that time, Okell had proved herself to be a talented commander of the wooden battleships. So when Horton arrived to play the Game and took the role of a U-boat commander, she was a natural choice for his opponent. And doing so could make an important point: if someone so young and inexperienced could use Raspberry to defeat one of the First World War's most storied submarine captains, the efficacy of the new tactic would be proven.

Horton strode onto the linoleum sea while Okell stood in her hiding place, and the battle began. Horton's scepticism dissipated as his opponent sank U-boat after U-boat. Five times Horton attempted to escape the escort ships, and five times Okell and Laidlaw defeated him. On the fifth sinking, Horton, who had become increasingly flustered with each loss, erupted. "You can see, and I can't," he roared. "You just rigged it, didn't you?"

Roberts indignantly explained that no, the Game had not been rigged. Then Horton harrumphingly asked to see who was standing behind the canvas, laying waste to his submarines. To his disbelief, a young woman stepped out. The submarine ace had been beaten by someone who was barely out of school, had never been on an escort ship, had never seen battle – and, worse still, wasn't even an officer.

THE SUBMARINE ACE HAD BEEN BEATEN BY SOMEONE BARELY OUT OF SCHOOL, WHO HAD NEVER SEEN BATTLE – AND WASN'T EVEN AN OFFICER

Nemesis of U-boats

Many of those involved in WATU's work never spoke of their role in the war, and the group's contribution is barely remembered in Britain (unlike, for example, the involvement of women in cryptanalysis at Bletchley Park). By the fall of Berlin in 1945, though, the U-boat commanders were intimately familiar with Gilbert Roberts, his team and their tactics. Roberts, who spoke fluent German, was one of the first British naval officers to arrive in Germany following its surrender in May 1945, and on 23 May, he eagerly travelled to the U-boat base in Flensburg, far north Germany. In the main operations room, he saw his photograph, cut from a magazine article and tacked to the wall. Beneath the image was a hand-written caption: "This is your enemy, Captain Roberts, Director of anti-U-boat Tactics."

Between the first week of February 1942 and the last of July 1945, when WATU closed, a total of 66 Wrens had completed the course in order to become staff at WATU or its sister units, and some 5,000 naval officers had played the wargame run by Captain Roberts and his team during more than 130 courses. Many graduates of the Game credited the battles they waged on the floor as being instrumental in their victories during encounters with U-boats at sea.

At the war's end, Admiral Sir Max Horton, who had been defeated on that day in 1942 by two young Wrens, sent a signal to all who had served in the unit – a powerful tribute to their momentous achievement:

"On the closing down of WATU I wish to express my gratitude and high appreciation of the magnificent work of Captain Roberts and his staff, which contributed in no small measure to the final defeat of Germany." H

Simon Parkin is a writer and journalist. His latest book is *A Game of Birds and Wolves: The Secret Game that Won the War* (Sceptre, 2019)

IWM (A 27819)

LIFE AS A WREN

Deadly cargo
Wrens help transport a torpedo to a submarine in Portsmouth, 1943. The WRNS was viewed as the most exclusive of the women's auxiliary services, says Elisabeth Shipton

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Elisabeth Shipton delves into the history of the Women's Royal Naval Service and recounts the tales of plucky 'Wrens' – from cleaners to mechanics – who made up its wartime ranks

When the air raid siren began to blare, everyone on the third floor ran for the basement – except for 19-year-old Vera Jahans, the naval switchboard operator, who was ordered to stay at her post. She was told to wear her tin hat, and, "if it got very noisy, to get under the board for a bit". After the Allied invasion of France in June 1944, switchboards like hers were in operation 24 hours a day, coordinating the movement of troops and supplies. Vera was just one of more than 75,000 women who served in the Women's Royal Naval Service (WRNS) during the Second World War, undertaking vital – and sometimes dangerous – work.

The WRNS had first been established in 1917 during the First World War, when around 6,000 'Wrens' took on predominantly administrative and domestic jobs in the Royal Navy to release men for frontline duty. Disbanded in peacetime, it was reformed in April 1939, when war again became inevitable. Dame Vera Laughton Mathews, who had spent two years with the WRNS during the First World War, was appointed as its new director.

In the Second World War, the only way for women to undertake military duties was to join one of the three auxiliary services that provided supporting staff for the armed forces. Alongside the WRNS was the Army's Auxiliary Territorial Service (ATS), and the Women's Auxiliary Air Force (WAAF). The WRNS quickly became the most popular.

As the smallest of the women's services, entry into the WRNS was naturally more competitive. Like many women, 18-year-old Barbara Smoker was anxious about factory work "because I'd feel I was making things that would kill people and wound people, and this seemed to me such an awful thing". She thought that in the services, she would be less directly involved in killing the enemy and so volunteered before she risked being called up for factory work. The WRNS also offered women more opportunities for skilled specialist work in addition to general domestic roles.

LIKE MANY WOMEN, BARBARA WAS ANXIOUS ABOUT FACTORY WORK. "I'D FEEL I WAS MAKING THINGS THAT WOULD KILL PEOPLE"

Newspaper adverts and recruitment posters depicted a smart woman in uniform calling for volunteers to "Join the Wrens – and Free a Man for the Fleet". Paulina Nichol, who served as a WRNS meteorologist, recalls wearing "a straight blue serge

skirt, black stockings, dark blue bloomers (a fleecy material) and a jacket which... fitted pretty well if you were lucky." And, unlike the women of the ATS, most Wrens were volunteers rather than conscripts. With thousands of applications every time new positions opened, the WRNS was seen as the most exclusive of the auxiliaries, and the recruiting officers were able to take their pick of the best candidates. But when women were called up, they were in for a shock. Each one had to earn her place – and her uniform.

The gritty reality

The women first reported as probationers to Mill Hill, London, for two weeks' basic training. Dressed in overalls, there was none of the promised glamour. According to 19-year-old Eileen Drury, the whole affair was "designed to put us off... it was perfectly dreadful, nearly killed us!"

Lectured on naval traditions, the women were taught to drill, and any romantic notions of crewing sailboats were quickly dismissed. Josephine Pearce says, "I remember spending most of the fortnight scrubbing rough bare concrete floors... cleaning, cleaning, cleaning and more cleaning."
The recruiters were seeking resilient women who weren't afraid of hard work or being shouted at by their superiors. Instead of joining an exclusive club based on social class or wealth, Wrens were selected based on their skills and experience. The director, Vera Laughton Mathews, insisted that, apart from the initial appointments in 1939 when the WRNS was being established, all officers should be appointed from the ranks.

After basic training, the women were interviewed. If they were accepted, they were given a chance to choose their role and finally receive their uniforms. Initially, the navy only wanted women for domestic and clerical duties, but even before the war began, they asked Wrens to take on coding and cypher work. To keep communications secret, a coder would encrypt messages to be sent between ships and bases by substituting the text with pre-agreed words and phrases. However, a Cypher Wren dealt with more confidential material, substituting each letter using a more complex system.

Enid Bruce began working as a Wren coder in her home city of Newcastle at the end of 1939. Then, in May 1943, she became a cypher officer on board a troop ship. Wrens were not permitted to serve on large Royal Navy vessels. As well as maintaining its ban on women in combat positions, the navy argued that it must ensure propriety – there were no separate female quarters on board their ships. Yet troop ships like *Queen Elizabeth*, which Enid worked on, had been converted from luxury liners, so accommodation was not an issue. In total, approximately 30 Wrens worked on troop ships and handled sensitive information, including messages bound for the Allied leaders' conferences in Quebec and Tehran.

While the British worked hard to protect their own communications, they were simultaneously trying to break the enemy's codes. Eileen Drury was offered a role so secret that she wasn't allowed to tell anyone about it – not even her parents. If anyone asked, she was doing clerical work. Reporting to a top-secret building in Stanmore, London, Eileen joined a small group of Wrens in charge of Britain's first computers, a series of machines called Bombes. Built by the country's top codebreakers at Bletchley Park, the Bombes were set up by the Wrens according to precise instructions, and they

Ready for duty
A WRNS recruitment poster, printed c1942. By 1944, the total number of women serving as Wrens had soared to more than 74,600

RECRUITERS WERE SEEKING WOMEN WHO WEREN'T AFRAID OF HARD WORK OR BEING SHOUTED AT BY THEIR SUPERIORS

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Flash of brilliance A pair of WRNS visual signallers demonstrate the use of an Aldis lamp to send and receive messages from nearby ships

A fitting role A Wren changes a tyre at the HMS *Daedalus* shore establishment in Hampshire. The variety of roles open to women increased as the war progressed

waited for hours as they processed thousands of combinations, aiming to crack the German naval codes.

Allied convoys transporting troops and valuable supplies were at the mercy of Germany's submarines, the U-boats. If Bletchley could break a code in time, the convoys could be warned in advance of the enemy's plans. When the Bombe suddenly stopped, the Wren noted the position of the dials, and the information was sent back to the team at Bletchley.

Eileen says the Wrens were under "a lot of pressure to be quick and terribly accurate and not to make mistakes... we knew if we were quick and could get the message up quickly, we could save a lot of lives". Eileen later volunteered for service abroad, spending two years working for South East Asia Command in Colombo, Ceylon (modern-day Sri Lanka), dealing with Japanese codes. Wrens first went overseas in 1941, and by the end of the war they had served in Ceylon, Egypt, Kenya, Singapore, Iraq, South Africa, the United States and Northern Europe. They supported the Royal Navy across the globe.

While the majority of women were still employed in domestic roles (such as cooking and cleaning) by 1941, the number of jobs available to women increased significantly. For instance, all naval despatch riders were Wrens, delivering messages by motorbike, and they also began crewing small craft within the navy's harbours. As meteorologists, their forecasts informed the navy and its air force, the Fleet Air Arm, ahead of manoeuvres. In the months leading up to D-Day (see page 90), the Wrens helped build up knowledge of how weather systems behaved across the Channel and the impact these could have on the operation. From parachute packers to radar plotters, the list of jobs kept growing. New technologies such as radar required more people on the ground to install and maintain equipment, leading to a growth in mechanical roles. Female conscription was introduced in December 1941, and over the next year WRNS membership doubled from 10,653 to 22,898, peaking at 74,635 in 1944.

In her admission interview, Louise Taylor requested to do "something out of doors". With a grasp of physics and "strong wrists", Louise undertook six months' training as an ordnance mechanic. She learnt to strip down different guns and name all the separate parts – one gun she worked with, she recalled, had over 365 parts – before putting them back together again. Once qualified, Louise was posted to Scotland with the Fleet Air Arm. Her job was to maintain and clean the guns (including those fitted in aircraft) and then test them to make sure that they were all in working order.

Louise and the other Wrens also put together the practice bombs for pilot training, which contained a bright orange dye to show whether or not they had hit their target. The dye stained the Wrens' hands, and their overalls were forever covered in oil from the guns. Carrying around heavy wooden tool boxes was hard work. There were meant to be weight limits on what women could lift and carry, but nobody ever checked. In due course, Louise was placed in charge of the explosives compound, checking the inventory and safety of the site – a major responsibility.

Blurring boundaries

Women were still not permitted in combat roles, but sometimes the boundaries became unclear – particularly during Operation Outward. From 1942 until the Allies landed in Normandy, Wrens were employed in a secret scheme in the coastal town of Felixstowe, Suffolk. Inflating large balloons measuring about 8 feet in diameter, the Wrens then attached either a long trailing wire or an incendiary device to the end. When the wind blew in the right direction, these balloons drifted across the Channel to German-occupied Europe. The aim was to cause a major nuisance; for the wires to bring down telephone lines, and for the incendiaries to set fire to crops and buildings (one balloon even caused a blaze that destroyed a power station). Unusually, these Wrens were also trained to fire Lewis guns and rifles in case they came under attack.

When the wind was blowing the wrong way, the Wrens spent their time making grommets: circles of interlaced wire that were hung across harbour entrances to prevent submarines entering. In total, Operation Outward employed seven Wren officers and 140 Wrens, and they successfully launched over 99,000 balloons.

The Wrens also played a crucial part in implementing radar; a major innovation championed by the British armed forces during the war. Wren radio mechanics were trained to install radar units in aircraft and boats and to fix them quickly if anything went wrong. Radar used radio waves to ascertain the location of other vessels and aircraft. This information was then relayed to operation rooms, where Wrens received details of the locations and plotted them on a grid, providing commanding officers with a three-dimensional view of the situation. Former Wrens recall looking at the grid on D-Day and trying to keep track of the hundreds of ships crossing the Channel.

Thelma Stollar trained for nine months as a radio mechanic, and in March 1944 she reported to HMS *Collingwood* to help set up a radar training school. Their male commanding officer "was utterly appalled to see us and said that it was absolutely useless to have Wrens... he was furious." He told the women they would have to run cables, fix generators and mix cement; not women's work. To which, Thelma said, the Wrens replied: "Oh, we can do that!" According to her, they always said, "we can do that".

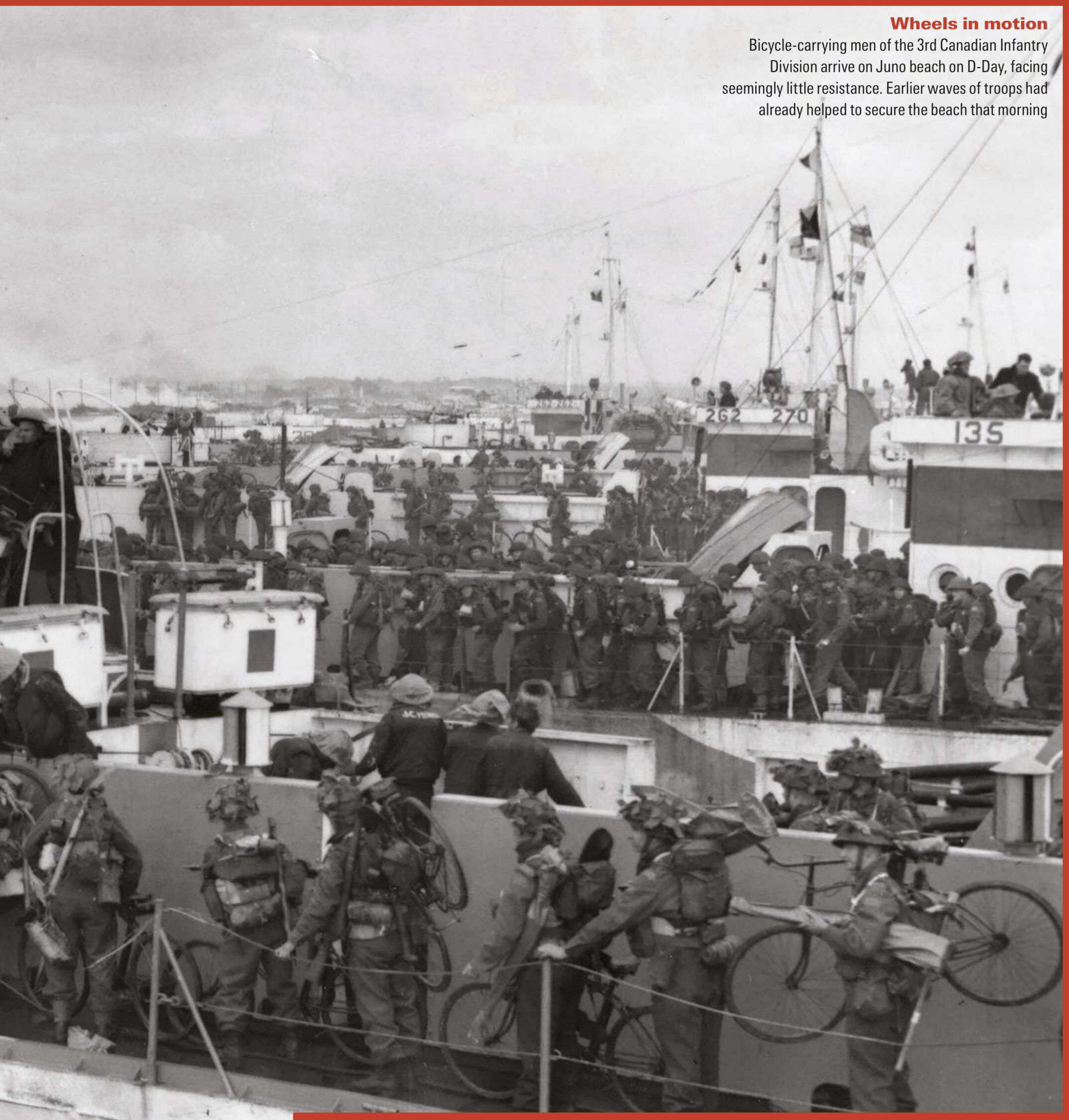
Over the course of the war, the women of the WRNS adapted to new roles, taking on more responsibilities and facing new challenges. Such was the vital contribution of the Wrens that in 1949 the service was made permanent, before eventually being integrated into the Royal Navy in 1993. H

Elisabeth Shipton is an author and military historian. Her books include *Female Tommies: The Frontline Women of the First World War* (The History Press, 2014)

GETTY IMAGES

THE BEGINNING OF THE END

Wheels in motion
Bicycle-carrying men of the 3rd Canadian Infantry Division arrive on Juno beach on D-Day, facing seemingly little resistance. Earlier waves of troops had already helped to secure the beach that morning



GETTY IMAGES

Early on the morning of 6 June 1944, thousands of Allied troops swarmed the beaches of Normandy to begin their daring invasion of Nazi-occupied Europe. **Gavin Mortimer** tells the story behind the seaborne operations that helped shape D-Day's ultimate success

On New Year's Eve 1943, three of the Allies' greatest military minds convened in Marrakech: General Bernard Montgomery, the commander of all Allied ground forces, British prime minister Winston Churchill, who was recuperating in the city following a bout of pneumonia, and American general Dwight Eisenhower. The last of the trio (who was supreme commander of the Allied forces in Europe) had stopped in Morocco en route to the US, where he was to meet with President Franklin D Roosevelt. And what they debated would ultimately signify a key turning point of the Second World War.

"I found the prime minister studying a copy of the plan for Overlord – the code name given to the invasion of Normandy," recalled Montgomery. "He gave it to me to read and said he wanted my opinion on the proposed operation."

It was a daunting plan to discuss, one whose success or failure would determine the length of the European war. The trio decided that the initial landing phase in Normandy (code-named Operation Neptune) would take place between the river Orne and the base of the Cotentin peninsula. Calais' coastline was much nearer, but the German defences there were far stronger.

Normandy offered other advantages, too: the coast was sheltered from prevailing winds and there was suitable terrain in the hinterland for building airstrips. There were no existing ports in the 50-mile stretch of coastline selected by the Allies, but civil engineers had toiled for months to create two artificial harbours that could be towed across the Channel to France.

IT WAS A DAUNTING PLAN TO DISCUSS, ONE WHOSE SUCCESS OR FAILURE WOULD DETERMINE THE LENGTH OF THE EUROPEAN WAR

The man chiefly responsible for assembling the biggest armada in history was Admiral Sir Bertram Ramsay, naval commander-in-chief of the Allied Expeditionary Force. The initial invasion date of 1 May was pushed back to early June in order for more assault craft to be amassed, while also allowing more time to train the crews who would man them. "The total initial lift in the assault and follow-up naval forces was of the order of 130,000 personnel and 20,000 vehicles," wrote Montgomery. "All of which were to be landed on the first three tides."

Hell-bent on hurling the invaders back into the sea were the Germans, who, according to Allied intelligence at the start of 1944, numbered over 50 divisions in France – six of which were Panzer.

Casting a dark shadow

On the evening of 2 June, Montgomery dined at his headquarters in Hampshire with Eisenhower. The pressure on the pair was immense. After all, the weight of a doomed training exercise code-named Tiger loomed over their heads. That mission, which occurred off the south Devon coast on 28 April, had involved a large-scale beach landing rehearsal at Slapton Sands. German E-boats had torpedoed the fleet, resulting in the deaths of hundreds of American soldiers.

The disaster had been swept under the rug, but there would be no chance of concealing the fate of 6,939 ships and landing vessels, 2,395 aircraft and 867 gliders if they too met a grisly end on Normandy's coastline in a few days' time.

The western task force was American and would come ashore at beaches code-named Utah and Omaha. Their names were likely chosen by General Omar Bradley, commander of the US 1st Army, while the codenames for the beaches on which the Anglo-Canadian Eastern Task Force (comprising Montgomery's 21st Army) would land were Gold, Sword and Juno – revised from the original codenames of Goldfish, Swordfish and Jellyfish.

The intention was to have eight divisions ashore by the end of D-Day and 18 by the end of the first week, establishing (with the help of airborne operations inland to secure key strategic installations) a beachhead that could not be thrown back into the sea, no matter how ferocious the inevitable German counterattack.

But the Allies faced an enemy with the potential to cause them even more damage than the Nazis: the weather. The morning of 3 June was inclement, and the forecast for 5 June – the scheduled day of the invasion – was for storm conditions over the Channel. "My own view is that if the sea is calm enough for the navy to take us there, then

ALAMY/ NHHC, SC 320901-ARMY SIGNAL CORPS COLLECTION-NARA

TIMELINE **The attack from the waves on D-Day**

1.15am
The RAF launches operations Glimmer and Taxable by **dropping strips of foil that appear on radar screens as naval convoys**. It is designed to fool the Germans into believing the invasion fleet is heading to Calais, as predicted by Hitler.

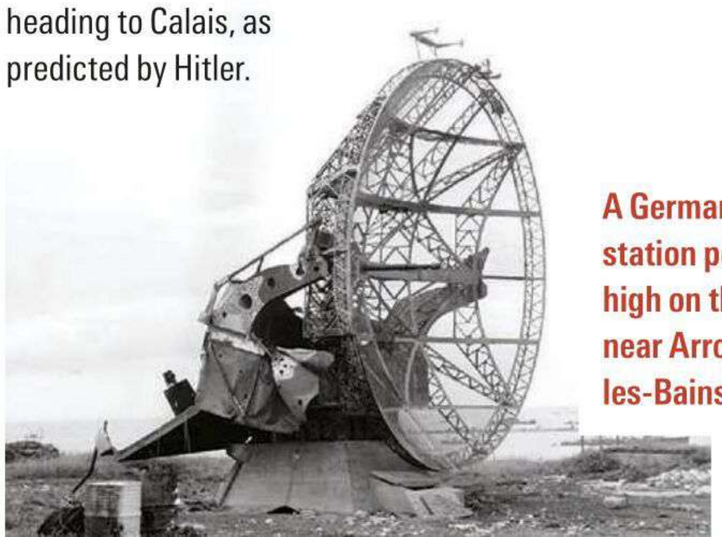
2.29am
As more than 18,000 Allied paratroopers fight to secure the eastern and western flanks of the 50-mile invasion area, the **6,939 vessels of the invasion fleet have sailed from ports in southern England, notably Portsmouth.**

4.30am
Two rubber rafts containing men from the 4th Cavalry Group approach the St Marcouf Islands, three miles off the coast from Utah beach. They swim the last 100 metres and become the first Allied soldiers to invade France by sea.

4.45am
Two British midget submarines, X-20 and X-23, surface one mile off the Normandy coast. Twenty miles apart, their task is to mark the limits of the Anglo-Canadian landing for the invasion fleet using strobe lights and underwater sonar devices.

5.58am
In a German bunker overlooking Omaha beach, Major Werner Pluskat scans the sea with his binoculars, aware of confused reports of an enemy airborne operation inland. **As the dawn mist lifts, he spots what "must be 10,000 ships".**

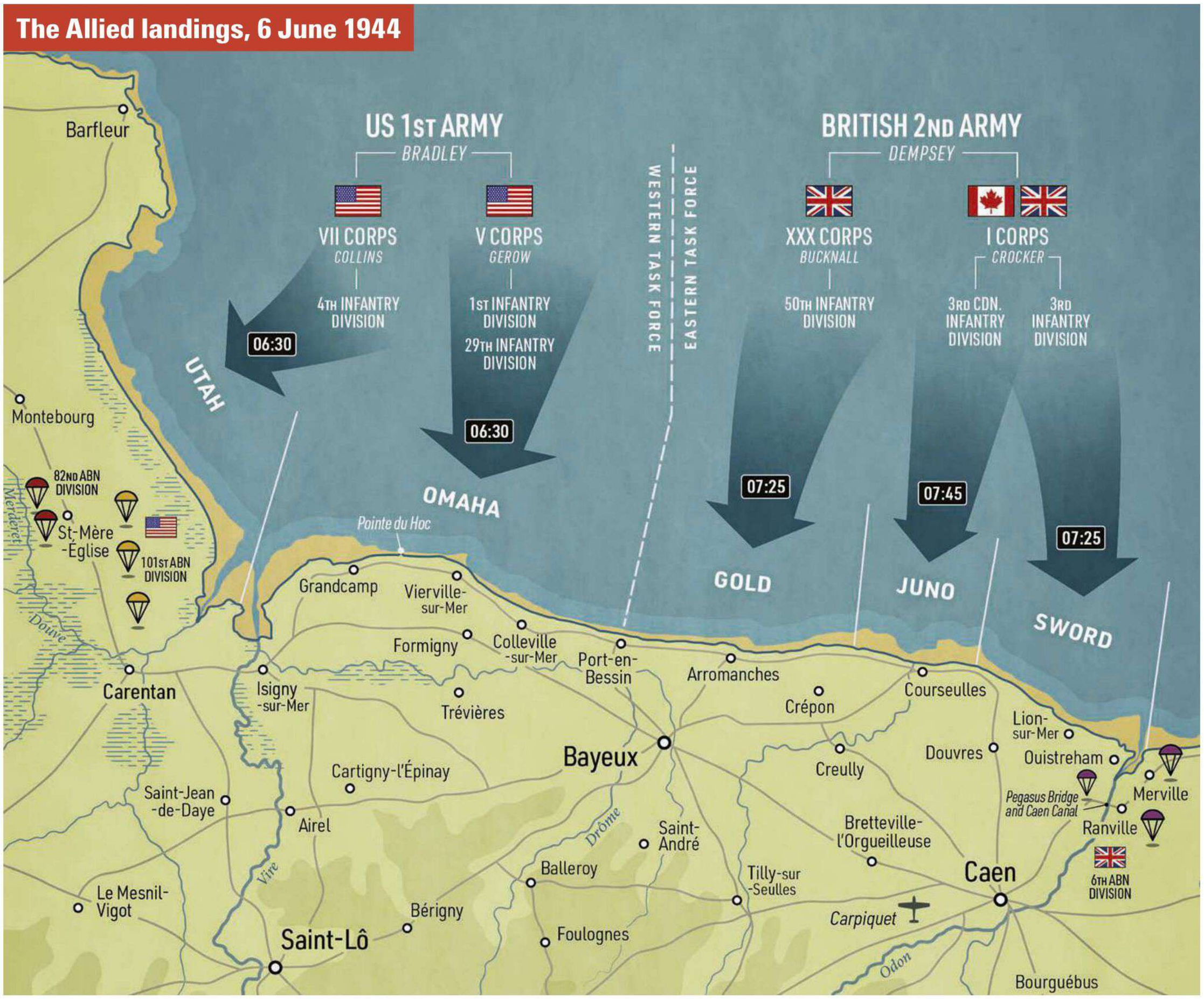
6.30am
After rocket launcher barges bombard the beaches, the **34,000 men and 3,300 vehicles of the 1st and 29th US Divisions come ashore** over a four-mile front at Omaha, while the 23,000 men of the 4th Division land on Utah.



A German radar station perched high on the cliffs near Arromanches-les-Bains

US troops survey the scene from their landing craft as they approach Omaha beach

The Allied landings, 6 June 1944



MAP ILLUSTRATION BY **BATTLEFIELD DESIGN**

7.25am

It's H-Hour on Sword and Gold beaches, and on the former, **the 3rd British Division and 3rd Canadian Infantry Division land near Caen**, with the capture of the city one of their main objectives. The 50th British Division arrives on Gold beach.

7.45am

The 3rd Canadian Infantry Division starts landing on Juno beach a few minutes behind schedule. The tide is higher, and mines and obstacles are harder to spot in the water. **Landing crafts founder, and seven of their 29 amphibious tanks sink.**

10.18am

German artillery and machine-gun fire at Omaha beach has killed or wounded 2,000 Americans. Eventually, two destroyers – USS *Thompson* and *McCook* – manage to destroy two 75mm guns that have been wreaking havoc.

11.22am

Despite suffering grave casualties, **the Americans are beginning to fight their way off Utah and Omaha beaches and move inland**. A message is sent to General Omar Bradley, commander of the US 1st Army, reporting that "things look better".

11.59am

On the three Anglo-Canadian beaches on the eastern flank of the 50-mile invasion zone, there is some progress inland, but **the advance is severely hindered by thousands of mines laid by the Germans**.

12.15pm

In London, Winston Churchill addresses Parliament. He declares: **"This morning, the first of the series of landings in force upon the European continent has taken place...** So far the commanders who are engaged report that everything is proceeding according to plan."

A smiling Churchill arrives in Westminster to break the news of the Normandy landings

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From the deep
A British midget submarine surfaces off the coast of Scotland during preparations for D-Day

we must go," Montgomery wrote in his diary on 3 June.

At 4am the next day, Eisenhower, Montgomery, Ramsay and Air Chief Marshal Sir Arthur Tedder (Eisenhower's deputy) convened to scrutinise the latest meteorological forecast. "The weather reports were discouraging," remarked Montgomery. "The Navy reckoned the landing was possible but would be difficult."

Eisenhower asked for a show of hands. Ramsay wouldn't commit, Montgomery wanted to invade as planned and Tedder voted for a day's postponement. "Weighing all the factors," said Montgomery, "Eisenhower decided to postpone D-Day for 24 hours; it would now be on 6 June."

At the same hour that Eisenhower took his momentous decision, just over 100 miles south a 52-ft midget submarine, X-23, arrived in position off the Normandy coast. Inside the cramped craft were five men from Combined Operations Pilotage Parties, a special forces unit of the Royal Navy. Their task, along with their sister midget submarine, X-20, was to guide the Eastern Task Force to Gold, Sword and Juno beaches with the use of radio beacons and illuminated masts.

The two submarines were in position as dawn broke on 4 June. "We had to get to the eastern extremity of the beaches," recalled Sub Lieutenant Jim Booth, one of the five men aboard X-23. "We had no radar, so we just waited until we saw a church tower and then looked at our map to make sure it was the right stretch."

The craft was a quarter of a mile from the port of Ouistreham, code-named Sword beach, where in 24 hours thousands of British soldiers would land. At least that was the plan. "We surfaced at night on 4 June and got the signal in plain language – 'Trouble in Scarborough' – which we knew as the code for a postponement," said Booth. "So we bottomed and spent another day in a cold, wet, smelly submarine, hoping that we wouldn't run out of oxygen."

Back in England, the delay strained the nerves of the thousands of sailors, soldiers and airmen who would be taking part in the landings. Two men of the 103rd LCT Flotilla – wireman (electrician) Robert Watts and signalman Vic Longhurst – were among those waiting to set sail. The Landing Craft Tank (LCT) was 35 metres in length, crewed usually by 13 men, two of whom manned the twin 20mm cannons, and boasted a top speed of eight knots. "Two Centaur Tanks were secured onto the special platform and two jeeps on the tank deck," recalled Watts. "To keep us company were Royal Marines and Canadian soldiers. The LCT was packed to full capacity, and there was no cover."

Longhurst's LCT was similarly packed to the gunnels, with the Marines and soldiers on board receiving a soaking as the flotilla finally sailed from England on the evening of 5 June in weather that Watts described as "atrocious". And the sheer size of the invasion fleet finally became apparent, as vessels from various ports headed for France. Cruisers, battleships, minesweepers, cargo ships, frigates, monitors, destroyers, submarine hunters and several types of landing craft containing tanks, vehicles, soldiers, and rocket launchers primed to bombard the beaches prior to the invasion all took to the seas – ready to unleash hell on the Germans.

But as the 103rd LCT Flotilla approached mid-Channel, Longhurst's signalling was not required, so his officer advised him to get his head down. "I laid on my bunk, and the next thing I knew, I had been shook awake," he said. "It was five in the morning. It was half-light in the distance, and the only signals we were receiving at the time were speed signals."

"AFTER THE BOMBERS HAD GONE THERE WAS UTTER SILENCE, AND THAT WAS A BIT FRIGHTENING. WE DIDN'T KNOW WHAT WAS HAPPENING..."

Power trio
Allied commanders Ramsay, Eisenhower and Montgomery (L–R) had to consider the impact of the weather on their invasion plans

Explosive encounters

At 5.07am on 6 June, midget submarine X-23 began flashing to seaward, the lights on its 18-foot mast having been erected by Jim Booth and his crewmates a few minutes earlier.

"We were standing on deck when we heard the bombers go over and that was fantastic," recalled Booth, who listened as 1,136 Allied aircraft began dropping 6,000 tonnes of bombs on the coastal defences. "After the bombers had gone there was utter

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Naval hero
Sub Lieutenant Jim Booth, who served on board midget submarine X-23 and helped guide the invasion fleet to the shore

Moments away
Scores of US troops prepare to face the formidable obstacles awaiting them on Omaha beach

Ready to fight
Men from Britain's No 48 (Royal Marine) Commando wade ashore close to Saint-Aubin-sur-Mer

8-US NAVY PHOTOGRAPH-NARA

Ocean warrior
The assault ship USS *LCI(L)-553* ferries soldiers to Omaha beach. By the end of D-Day, it had been destroyed in combat

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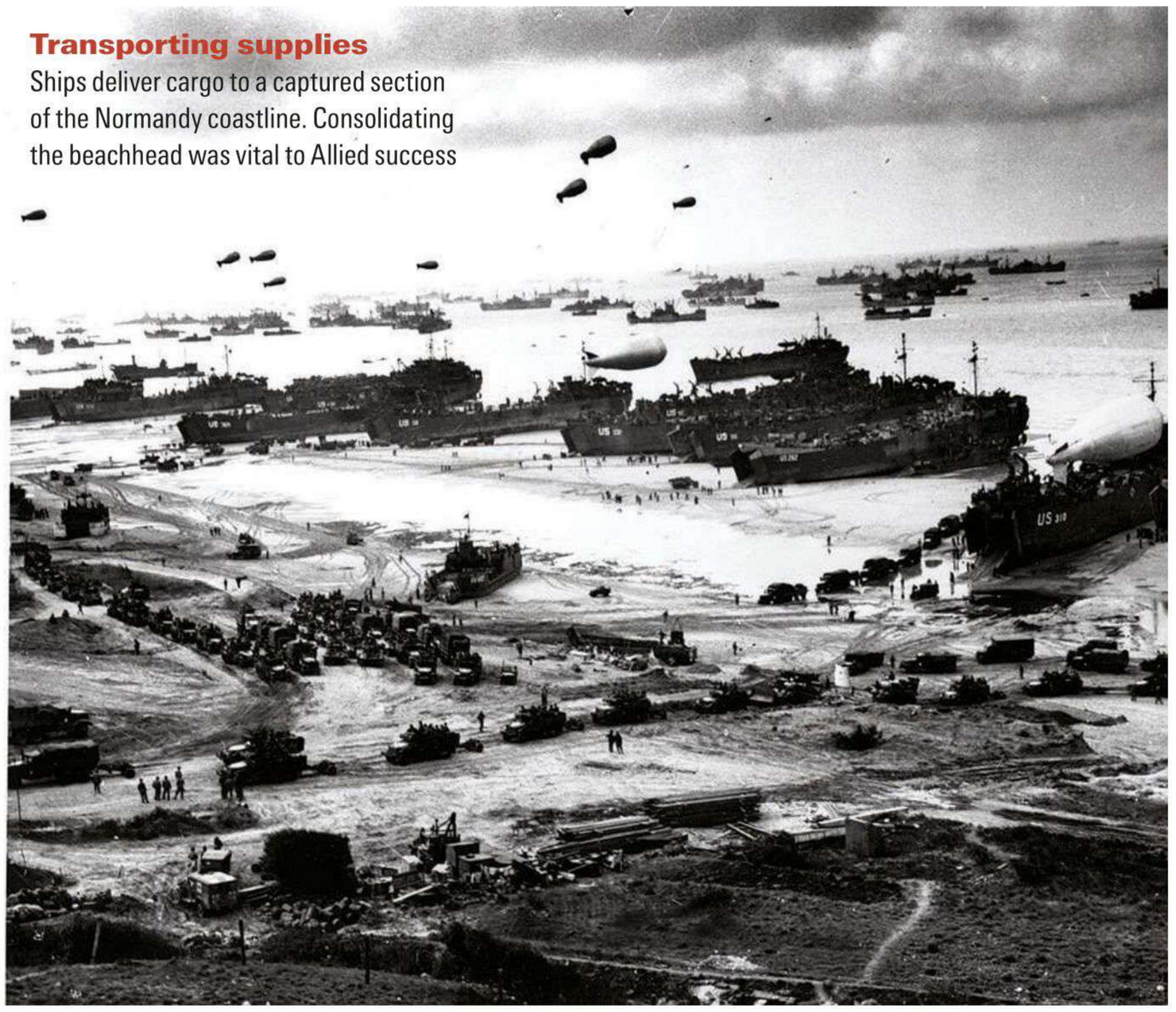
GAVIN MORTIMER/NHHC, SC 189986-ARMY SIGNAL CO

Man overboard

A soldier is helped onto a US Coast Guard vessel. His landing craft, like countless others, sank in the rough seas before it could reach the shore

NHHC, 26-G-2378-US COAST GUARD COLLECTION-NARA



Transporting supplies
Ships deliver cargo to a captured section of the Normandy coastline. Consolidating the beachhead was vital to Allied success

silence, and that was a bit frightening. We didn't know what was happening because it was still darkish."

It wasn't until just before six that dawn finally broke, and the feeble rays of sunlight that penetrated through the clouds illuminated an incredible scene. "Suddenly we saw them, literally as far as the eye could see, just ships," said Booth. "It was spectacular, but it must have been quite something for the Germans in their bunkers."

At Utah, 50 miles west of Sword beach, the warships of the Western Task Force opened fire on the German batteries, while American aircraft began bombing enemy defences and the rocket-launcher landing crafts unleashed 18,000 rockets onto the coastline (along with 20,000 rockets that pummelled Gold, Juno and Sword beaches).

One of the vessels sent to help secure Utah was the destroyer USS *Corry*, whose gun barrels were soon red hot from firing eight 127mm shells each minute. "We had a designated beach area, as did other cruisers and destroyers, typically in the area of some large German gun, which we were to destroy and then support the troops," recalled William Beat, a naval electronics technician on the *Corry* whose task was to jam radio-guided missiles. "We went in a little further so we could hit them better."

At 6.15am the US task force was only a mile off the coast, but some of the landing craft began to sink in the rough seas: 10 off Omaha and seven on the approach to Utah. When H-Hour (the scheduled landing time) came 15 minutes later, 23,000 men of the 4th Infantry Division came ashore on Utah.

Meanwhile, at Omaha, 34,000 men and 3,300 vehicles of the 1st and 29th Division advanced through the surf, encountering mines, barbed wire and steel and concrete obstacles. But worse of all was the enemy fire – more intense than anywhere else in the invasion zone. "It looked as if there was a massacre on the beach," remembered Lieutenant John Boehne, the gunnery officer of *LST-375*. "Groups of men and bodies were lined thick and deep all along the stretch."

At Utah, USS *Corry* paid for its boldness in approaching so close to the beach when it was hit directly below the surface of the water at the keel. William Beat was thrown out of his chair, but apart from a badly bruised shoulder he was otherwise unharmed. "I stayed aboard for maybe 30 to 45 minutes, helping others who were more badly injured than I was," he recalled. Of the crew, 24 were dead, and the rest, including 60 wounded, leapt from the stricken ship into the water wearing their life preservers.

"We were in the area where groups were making a landing in landing barges, [who] would call to you, 'you want to get on?'" said Beat. "And well, no, I didn't want to get on and go to the beach."

Pride and sorrow

H-Hour for the Eastern Task force was at 7.25am, but at Juno beach, the 366-strong fleet was delayed by the storm-tossed seas. "My duty was to lower the ramp, which enabled the tanks and troops to land," said Robert Watts of *LCT 2455*. "The lowering of the ramp door was operated by a manually operated winch, which was installed in the for'ard cable locker. What a position – right in the front part of the craft!"

Watts watched the soldiers and tanks disembark towards the beach with "mixed feelings of pride and sorrow", but for Vic Longhurst in a nearby LCT, there was a serious problem. "We had some trouble with an obstacle, and it had damaged our door, and they were having trouble lowering the ramp door," he recalled. "There were bullets flying all over the place, and bullets hit the wheelhouse and ricocheted back, and I was wounded. The coxswain inside the wheelhouse was killed... hit right in the forehead."

Longhurst was transferred to a Canadian troop ship, and by the evening he was being treated in Portsmouth – one of 10,000 Allied personnel killed, wounded or missing in what came to be immortalised as 'The Longest Day'. By midnight, 156,000 soldiers were ashore, an accomplishment that Montgomery found "extremely encouraging". However, the Allies were rocked by many setbacks – and many more deaths – in the coming weeks as they fought to break out of their beachhead (including a storm that wrecked one of the two artificial harbours in which thousands of tonnes of supplies and equipment were being unloaded each day). But the courage and skill that was shown on 6 June enabled the Allies to gain a precious toehold in German-occupied Europe.

On 12 June Winston Churchill and Jan Smuts, prime minister of South Africa, visited Montgomery at his Normandy HQ, where he asked the pair to sign his autograph book. "As it was in the beginning, so may it continue to the end," wrote Churchill. Beneath, Smuts added: "And so it will!"

And so it did. H

34,000 MEN AND 3,300 VEHICLES ADVANCED THROUGH THE SURF AT OMAHA, ENCOUNTERING MINES, BARBED WIRE AND STEEL AND CONCRETE OBSTACLES

Gavin Mortimer is a historian and author. His books include *The Men Who Made the SAS* (Constable, 2015) and *Guidance from the Greatest Generation* (Constable, 2020)

NHHC, 26-G-2517-US COAST GUARD COLLECTION-NARA

EYE OPENER

Driving ahead

US troops push a jeep onto the shores of Guadalcanal in the Solomon Islands, c1944–45. The island had previously been the focus of a bitter campaign beginning in August 1942, during which the US and Japan battled for control over Guadalcanal and its strategically important airfield. By early 1943, the Japanese were forced to retreat from Guadalcanal altogether, their ships unable to resupply the depleted ground forces that remained on the island.

GETTY IMAGES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BREAKING

The battle of the Philippine Sea saw the US and Japan wrestle for control of the strategically vital Mariana Islands. **Evan Mawdsley** argues that the engagement, while not nearly as famous as other Pacific carrier battles, was the death knell for the Imperial Japanese Navy

Fire and fury
US marines on a beach in Saipan prepare to attack the island's Japanese defenders, June 1944. Securing control of the Mariana Islands would provide the US with a launch point for carrying out bombing raids on mainland Japan

GETTY IMAGES

JAPAN'S BACK

The battle of the Philippine Sea, fought on 19–20 June 1944, is certainly not the most famous battle of the Pacific War, and even its name is somewhat misleading. Although the encounter took place within the 1,500-mile stretch of Pacific Ocean between the Philippines and the Mariana Islands, the fighting was ultimately about securing control of the latter. Indeed, the Japanese perhaps more accurately call it the 'battle of the Marianas'.

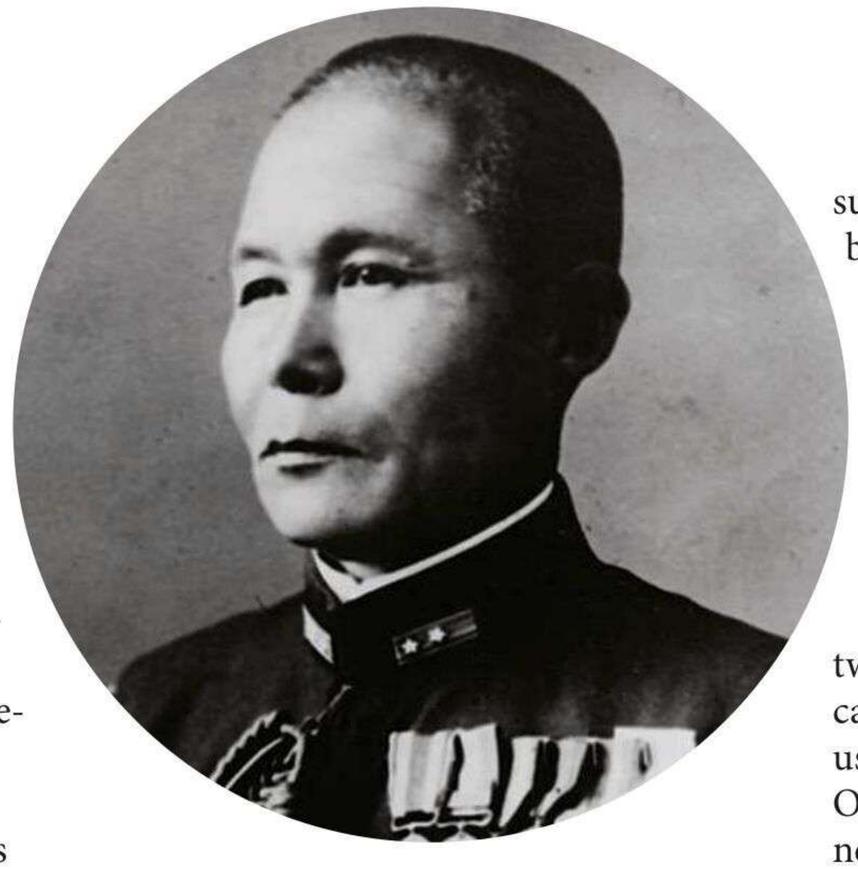
Whatever its name, however, many maritime historians would rate the battle as being among the war's most decisive. Not only did the Japanese lose their vitally strategic bases on the islands of Saipan, Tinian and Guam, but the clash effectively broke the back of Japanese sea power and secured a war-winning position for the US.

The prelude to the battle unfolded on 11 June 1944, when the US launched a series of preliminary carrier-based air strikes on the Mariana Islands. The Americans had advanced from their newly established forward bases at Eniwetok and Majuro in the Marshall Islands and the Imperial Navy was caught by surprise. At the time, the main Japanese battle force lay at anchor 1,900 miles away at Tawi Tawi in the southern Philippines. Four days later, US troops began pouring ashore on Saipan.

Despite their shock, the Japanese had already been formulating their response to such an attack for some time. Based on Imperial Navy strategy developed during the 1920s and 1930s, the forces of Admiral Soemu Toyoda's Combined Fleet planned to wear the enemy down as they advanced towards Japan, mounting attacks using submarines and long-range navy bombers operating from a network of island bases. Afterwards, the Americans would be engaged, defeated and pursued to destruction in a single decisive battle (*Kantai Kessen*) by the carriers and heavy surface ships of Vice Admiral Jisaburō Ozawa's battle force, the 1st Mobile Fleet.

A dangerous deceit

On 15 June, Toyoda ordered execution of the counterattack, code-named Operation A-Go. His words echoed those of Nelson before Trafalgar: "The fate of the empire rests on this one battle. Every man is expected to do his utmost." But unfortunately for the Imperial Navy, the larger plan did not develop as it should have – the Americans reached their objective undetected. The Japanese submarine fleet was small and out of position and no successful attacks were made. Similarly, the land-based bomber force of Vice Admiral Kakuji Kakuta's 1st Air Fleet, worn down by earlier enemy action, was widely dispersed.



Vice Admiral Jisaburō Ozawa, the commander of the 1st Mobile Fleet, aimed to destroy the US invasion force

As a result, the expanded carrier fleet of the US Navy's Task Force (TF) 58 faced little difficulty 'neutralising' the air bases on the small islands of the Marianas and sealing them off from reinforcement. Despite this, however, Kakuta exaggerated his successes and did not report the heavy losses his air groups were suffering or the severe damage to his bases. This was doubly dangerous. Ozawa, his carrier force outnumbered, did not want to engage the enemy carriers until their strength had been reduced by the land-based strikes. He had also relied on using air bases in the Marianas to extend the range of his carrier planes by allowing them to shuttle back and forth.

Unaware of the true situation, Ozawa's Mobile Fleet headed directly for the battle area west of the Mariana Islands. The vanguard force comprised battleships and cruisers, as well as light carriers with fighter-bombers tasked with disabling the US carriers. The array of surface ships was certainly formidable, including the super-battleships *Yamato* and *Musashi* (each bristling with nine 460mm guns), along with two older fast battleships and eight heavy cruisers. Indeed, Vice Admiral Matome Ugaki, commander of the 1st Battleship Division, recorded his optimism in his diary on 17 June: "Can it be that we'll fail to win with this mighty force? No! It can't be!"

Meanwhile, some 100 miles astern, were two carrier task groups ('A' and 'B') with big carriers intended to sink the American fleet using torpedo bombers and dive bombers. Ozawa was with task group 'A', aboard the new carrier *Taihō*. He counted on the greater range of his dive bombers and torpedo planes compared to their US counterparts.

Accelerating advance

Despite the size of Ozawa's fleet, it was inferior to that of the Americans. The US Navy had grown dramatically during the war and had seen the creation of an entirely new carrier fleet. By June 1944, TF 58 included 15 carriers (seven heavy carriers and eight light carriers), organised in four 'task groups'. Only one of the heavy carriers, *Enterprise*, had previously seen action during the major carrier battles of 1942 (see page 106), while the remaining six were of the new 'Essex' class – the most powerful of the entire Second World War.

Unlike Japan, the US Navy was also able to deploy a new generation of fighter aircraft, such as the Grumman F6F Hellcat, which had been active in raiding operations since arriving in the Pacific during the autumn of 1943. The Japanese carrier fleet, in contrast, had not actively engaged with US forces since the battle of the Santa Cruz Islands in 1942 and had suffered heavy losses. As a consequence, existing ships had to be repaired and new carrier aircrew trained.

To make matters worse for the Japanese, they also faced an acceleration of the enemy's advance. In the seven months leading up to the battle of the Philippine Sea, the Imperial Navy had been constantly on the back foot, reacting belatedly and ineffectively to a maritime blitzkrieg. Whereas the US fleet in the central Pacific had still been based at Pearl Harbor, Hawaii, at the beginning of November 1943, in February 1944 they made a long jump to the Marshall Islands (2,700 miles west), having already seized the Gilbert Islands along the way.

Only a few weeks later, TF 58 then raided the main Japanese Central Pacific naval base at Truk Atoll in the Caroline Islands. Major fleet units had to be rapidly withdrawn to Japan or bases further west, with hundreds of planes destroyed. Immediately afterwards (still in February 1944) two task groups from

THE IMPERIAL NAVY WAS CONSTANTLY ON THE BACK FOOT, REACTING BELATEDLY AND INEFFECTIVELY TO A MARITIME BLITZKRIEG

NHHC, NH 63425

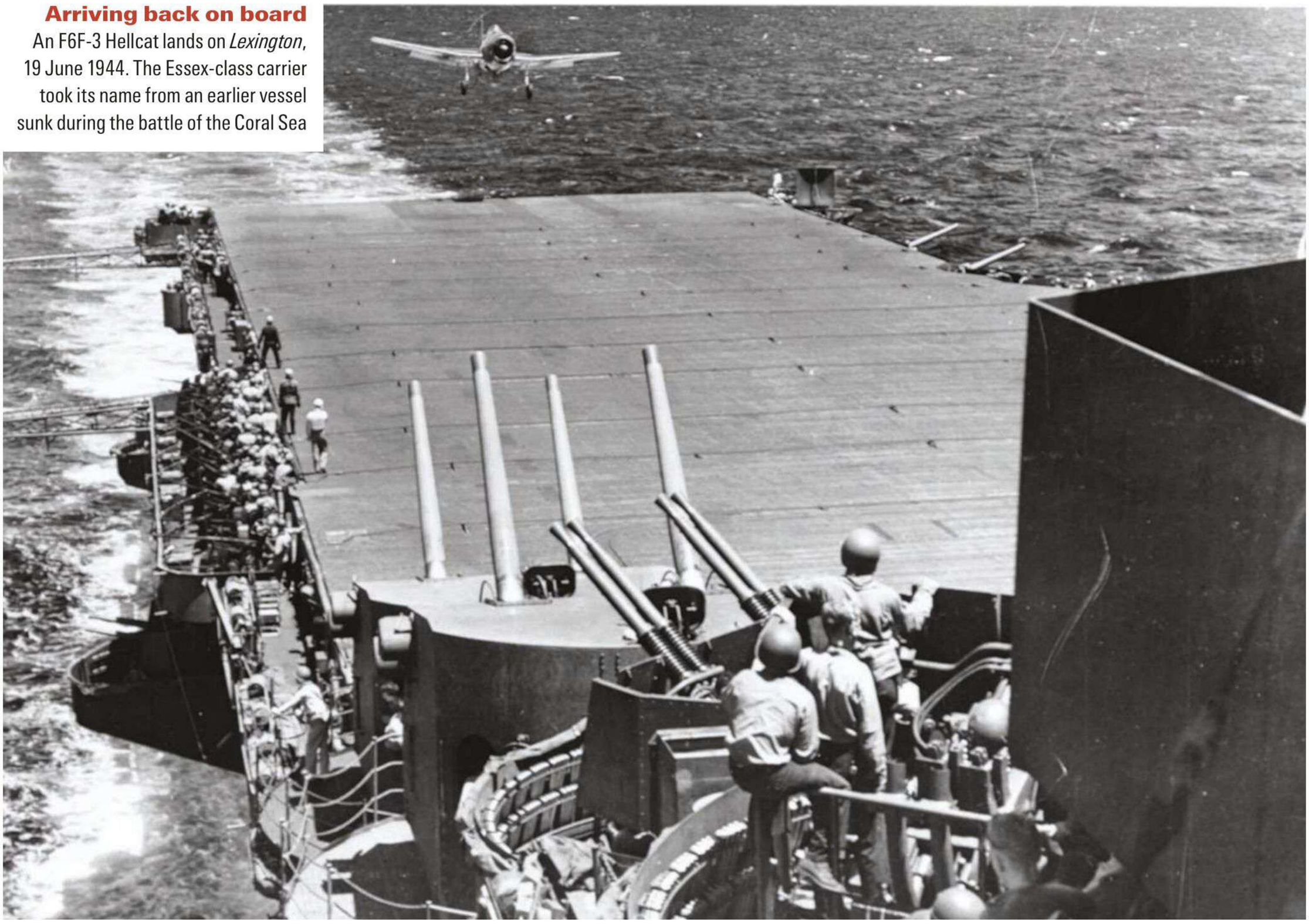
Open water The battle area in the western Pacific

Island warfare
US troops flushed out Japanese defenders at Saipan by any means necessary; see left, where soldiers are picking off the fleeing Japanese after releasing a demolition charge. However, only a small number of Japanese troops were taken prisoner (above)

Close call
A Japanese bomb explodes close to *Bunker Hill* on 19 June 1944. Japan's carrier fleet was markedly inferior to that of the Americans

MAP: PAUL HEWITT-BATTLEFIELD DESIGN/GETTY IMAGES/NHHC, NH 74281

Arriving back on board
An F6F-3 Hellcat lands on *Lexington*, 19 June 1944. The Essex-class carrier took its name from an earlier vessel sunk during the battle of the Coral Sea



Snatching some sleep
Exhausted plane handlers aboard *Lexington* manage to catch some rest during a quiet period of the battle

NHHC, 80-G-236955-NARA/ NHHC, 80-G-236849-NARA

TF 58 went on to raid the Mariana Islands for the first time, destroying air bases and additional aircraft.

At the end of March, the Americans turned their attention to the Palau Islands in the western Carolines, where the Combined Fleet's headquarters had been moved. Japanese ships were now forced to pull back even further west to the southern Philippines and Singapore.

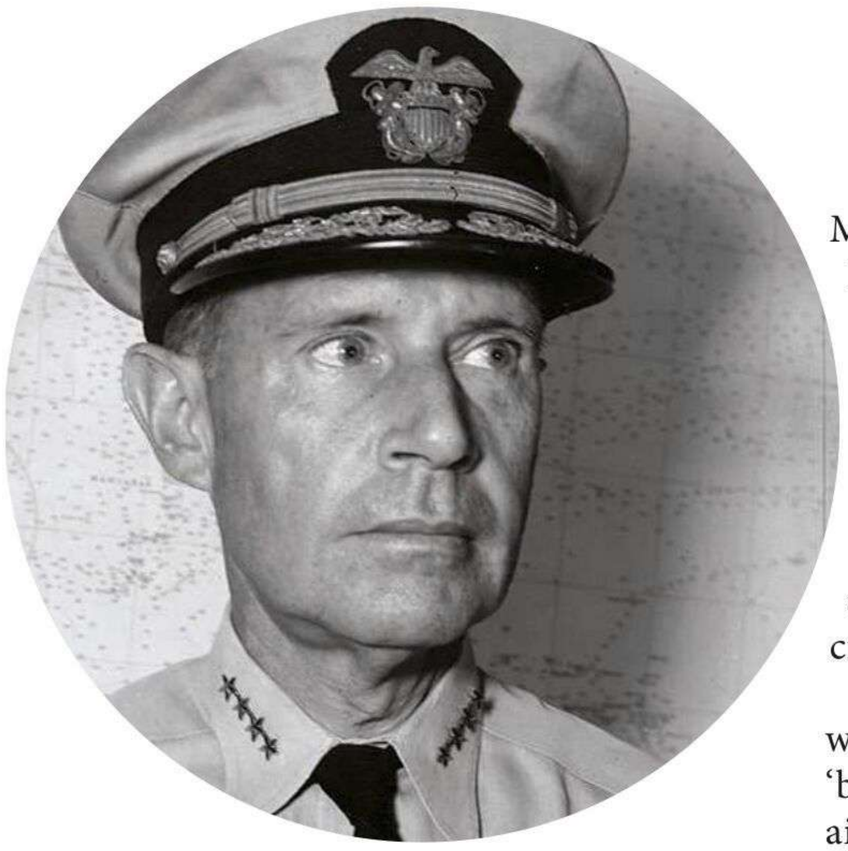
"An old-time turkey shoot"

When the battle of the Philippine Sea commenced on 19 June, the man in charge of US operations in the Mariana Islands was Admiral Raymond Spruance, commander of the 5th Fleet. Within the 5th Fleet were both the 'fast carrier' force of TF 58, commanded by Vice Admiral Marc Mitscher, and the amphibious ships of TF 51. It was decided that Spruance would take personal control of the naval battle from his flagship, the cruiser *Indianapolis*, while Mitscher was to travel aboard the carrier *Lexington*.

By now, Ozawa's own carriers had advanced through the Philippine archipelago and were making their way across the Philippine Sea. Spruance, however, knew the fleet was approaching thanks to radio intercepts, and there had also been sightings by US submarines. In fact, the admiral had already issued his battle plan two days in advance. "Our air will first knock out enemy carriers, then will attack enemy battleships and cruisers to slow or disable them," Spruance declared on 17 June. "Action must be pursued vigorously by all hands to ensure complete destruction of his fleet."

As the Americans prepared for battle, Ozawa's carriers reached their launch position and four raids were sent off. However, as the planes approached the enemy fleet, they ran into the US combat air patrol (CAP), comprising 430 radar-controlled Hellcat fighters. Japanese aircraft had long range, but this had been achieved at the expense of their survivability – and an aerial massacre ensued. Of the 373 Japanese planes launched from the Mobile Fleet for strikes or search missions, only 130 returned, while another 50 land-based aircraft were also shot down. In contrast, the Americans lost just 18 fighters, a dozen of them during air-to-air combat. As one jubilant US pilot exclaimed, the ease at which their opponents were defeated reminded him of "an old-time turkey shoot".

Only a few of the attacking Japanese carrier planes had managed to reach Spruance's barrier force of battleships and cruisers, let alone the four carrier task groups operating behind the barrier itself. And even then, only a handful of US ships had actually been hit, with none of them facing particularly serious damage.



Although Admiral Raymond Spruance helped lead the US to victory, he was criticised by some officers for being "overcautious"

But US Navy aircraft were not going to be "knocking out enemy carriers" on the first day of the battle. Instead, Spruance and Mitscher decided to concentrate on defence, and the Japanese fleet was out of range of their attack planes regardless. Below the waves, however, the US submarine force had been extremely successful. *Albacore* torpedoed *Taihō*, and *Cavalla* the *Shōkaku*; both carriers blew up and sank a few hours later.

The devastation drove Vice Admiral Ugaki to despair. "[Not] only did we fail to inflict damage on the enemy, but we sustained heavy damage," he wrote on 19 June. "Is it that heaven still does not side with us?"

The next morning, the Japanese withdrew to the west. Spruance could not, for much of the day, locate them. It was only at 4.30pm that Mitscher was able to launch his 'flight beyond darkness' – a dangerous long-range mission undertaken by 226 fighters and attack planes, which resulted in the sinking of the carrier *Hiyō*. For the Japanese, it was to prove too much. Early on 21 June, the Mobile Fleet limped away in defeat from the Mariana Islands, their six surviving carriers holding just 35 planes.

Yet despite achieving overall success, the US strategy had come at a cost. Having only reached the Japanese fleet as the sun was setting, some 80 planes of Mitscher's night-time attack were lost on the return, with pilots forced to ditch their aircraft in the darkness (although most crews were rescued from the sea).

Spruance was also criticised by some within the US Navy as an overcautious 'battleship admiral' who did not understand air power. Initially, he had been advised to steam to the west on the night of 18–19 June, to be in position to attack and decisively defeat the entire enemy fleet on the first day of the battle. Spruance, however, could not be sure where all the elements of the enemy fleet were, and he feared an 'end run'.

Crucially, too, the US invasion force on Saipan appeared to be meeting stiff resistance, and the protection of transports and supply ships seemed urgent. Spruance stayed near the islands and fought on the defensive. But it was ultimately the correct decision: by 9 July, the bloody conquest of Saipan was complete, without further action by the Imperial Navy. Little more than a month later, Tinian and Guam had fallen too.

Far-reaching consequences

Historically, the battle of the Philippine Sea is overshadowed by that of Leyte Gulf (see page 107), which was fought in October 1944 and spread out into four separate engagements. By then, the US Navy was even larger, with two more Essex-class carriers joining the fleet. But it was the battle of the Philippine Sea that brought about the destruction of the main striking force of the Imperial Navy. The carrier-based groups were destroyed and three of the five surviving large carriers were sunk. After that, the Japanese had no hope of fighting another successful fleet action.

And the Philippine Sea was not only an operational victory for the US; completing the conquest of the Mariana Islands had profound strategic and political results. The end of resistance on Saipan led to the fall of General Hideki Tojo's government in Tokyo. Saipan, with Tinian and Guam, provided enough space for the building of bases from which long-range US bombers could ravage Japanese cities. The battle truly paved the way for Japan's downfall. H

"NOT ONLY DID WE FAIL TO INFLICT DAMAGE ON THE ENEMY, BUT WE SUSTAINED HEAVY DAMAGE. IS IT THAT HEAVEN STILL DOES NOT SIDE WITH US?"

Evan Mawdsley is an honorary professorial research fellow at the University of Glasgow. The paperback edition of his book *The War for the Seas: A Maritime History of World War II* was recently published by Yale University Press

GETTY IMAGES

GREAT PACIFIC SEA BATTLES

Four other explosive encounters that shaped the brutal war on the waves between the United States and Japan

Braving the waves The crew of *Lexington* abandons ship. The battle of the Coral Sea in May 1942 may have been a tactical victory for Japan, but also a strategic setback

THE BATTLE OF THE CORAL SEA

7–8 May 1942

The battle of the Coral Sea was the first naval encounter of the Second World War in which the opposing fleets did not sight each other. Instead, the fighting was undertaken by airplanes, which were mostly carrier-based.

The Coral Sea itself is bounded to the north by New Guinea and the Solomon Islands, and to the west by Australia. The Japanese had planned to capture Port Moresby in the Coral Sea's north-west corner, as well as the island of Tulagi. Intelligence was vital: intercepted radio signals gave the US advanced warning and time to deploy a force including carriers *Lexington* (not to be confused with the Essex-class carrier of the same name) and *Yorktown* to the Coral Sea.

On 7 May, US carrier planes sank the light carrier *Shōhō*, and the following day, the larger Japanese carriers *Shōkaku* and *Zuikaku* joined the battle. During heavy fighting, *Shōkaku* was badly damaged, and *Lexington* was sunk.

Although the battle resulted in a tactical victory for the Japanese, it was a strategic win for the Allies. Crucially, the invasion convoy was forced to turn around without reaching its objective, while damage to *Shōkaku* and loss of aircraft meant that neither it nor *Zuikaku* would be available for the battle of Midway a month later.

Survivors from the sunken carrier *Hiryū* under guard after being taken prisoner

THE BATTLE OF MIDWAY 4 June 1942

Midway is arguably the most famous naval battle of the war and the one most frequently called 'decisive'.

The encounter was the consequence of Admiral Isoroku Yamamoto's plans to destroy the US fleet in the Pacific by luring it out to defend the naval base at Midway Atoll. To achieve the admiral's aims, the entire Imperial Japanese Navy was put to sea, with the spearhead comprising the four carriers of the Mobile Force that had previously attacked Pearl Harbor in December 1941.

Unfortunately for Japan, Admiral Chester Nimitz (commander-in-chief of the US Pacific Fleet) knew from radio code-breaking that the invading ships were coming and prepared an ambush.

On 4 June, Japanese carrier planes raided Midway, but the US fleet was not spotted until it was too late. US dive bombers hit three carriers. *Hiryū* was able to mount a small counterstrike that hit the *Yorktown*, but in the end all four Japanese carriers were lost – and with them naval superiority.

Contrary to popular belief, Midway was not a David v Goliath struggle – the two sides had roughly the same number of carriers and planes in the main battle. Above all, the Japanese suffered from overconfidence.

To read more about the battle of Midway, turn to page 66.

GETTY IMAGES/ NHHC, 80-G-79984-28-2-NARA

Deadly machines
Japanese Zeros on the flight deck of *Shōkaku* prior to the battle of the Santa Cruz Islands. The brutal encounter saw Japan take heavy aircraft losses

THE BATTLE OF THE SANTA CRUZ ISLANDS

26 October 1942

The battle of the Santa Cruz Islands was part of the wider struggle for the strategically important air base at Guadalcanal, located in the Solomon Islands.

When Guadalcanal was besieged by the Japanese in October 1942, Admiral William Halsey Jr – the newly appointed commander of the South Pacific Area – was under pressure to demonstrate his fleet's activity. From his headquarters in New Caledonia, he ordered a daring sweep to the inhospitable Santa Cruz Islands, with Rear Admiral Thomas Kinkaid commanding carriers *Hornet* and *Enterprise*.

Despite the famous loss of four carriers at the battle of Midway in June, the Japanese were now ahead once again. From his naval base at Truk Atoll, Admiral Yamamoto commanded three large fleet carriers, *Shōkaku*, *Zuikaku* and *Junyō*, and the light carrier *Zuihō* (a fifth vessel, *Hiyō*, had departed after an accident). The Japanese had 212 carrier planes in total, while the Americans had only 169.

In a violent exchange of air strikes, *Hornet* was sunk (the last heavy US carrier to be lost), while Yamamoto suffered severe damage to two carriers of his own. The defeated Americans were forced to return to base with *Enterprise* now their last surviving carrier, but the Japanese had taken heavier aircraft losses overall.

THE BATTLE OF LEYTE GULF 23–26 October 1944

The largest battle in naval history, the battle of Leyte Gulf was essentially a hopeless Japanese attempt to halt the US from invading the Philippines.

Under the command of Vice Admiral Takeo Kurita, the Japanese had intended to launch their main counterattack against the US with battleships and cruisers. Kurita had no carriers at his disposal but would be supported by land-based planes. Meanwhile, Vice Admiral Jisaburō Ozawa's carrier force – gutted during the battle of the Philippine Sea – would sail from Japan to lure the enemy carriers away.

On 22 October, Kurita set out from Borneo and moved through the central Philippines, suffering heavy losses from air strikes and submarines. Admiral Halsey, commanding the US fleet, took the Japanese 'bait' from the east and was out of position when Kurita emerged through the San Bernardino Strait. Steaming south, the Japanese admiral inflicted damage on the warships covering Leyte Gulf, where the invasion fleet lay.

At the critical moment, however, Kurita decided that further advance would destroy his whole fleet and turned back. Halsey did sink most of the 'bait' carrier force, but Kurita came close to causing significant damage. H

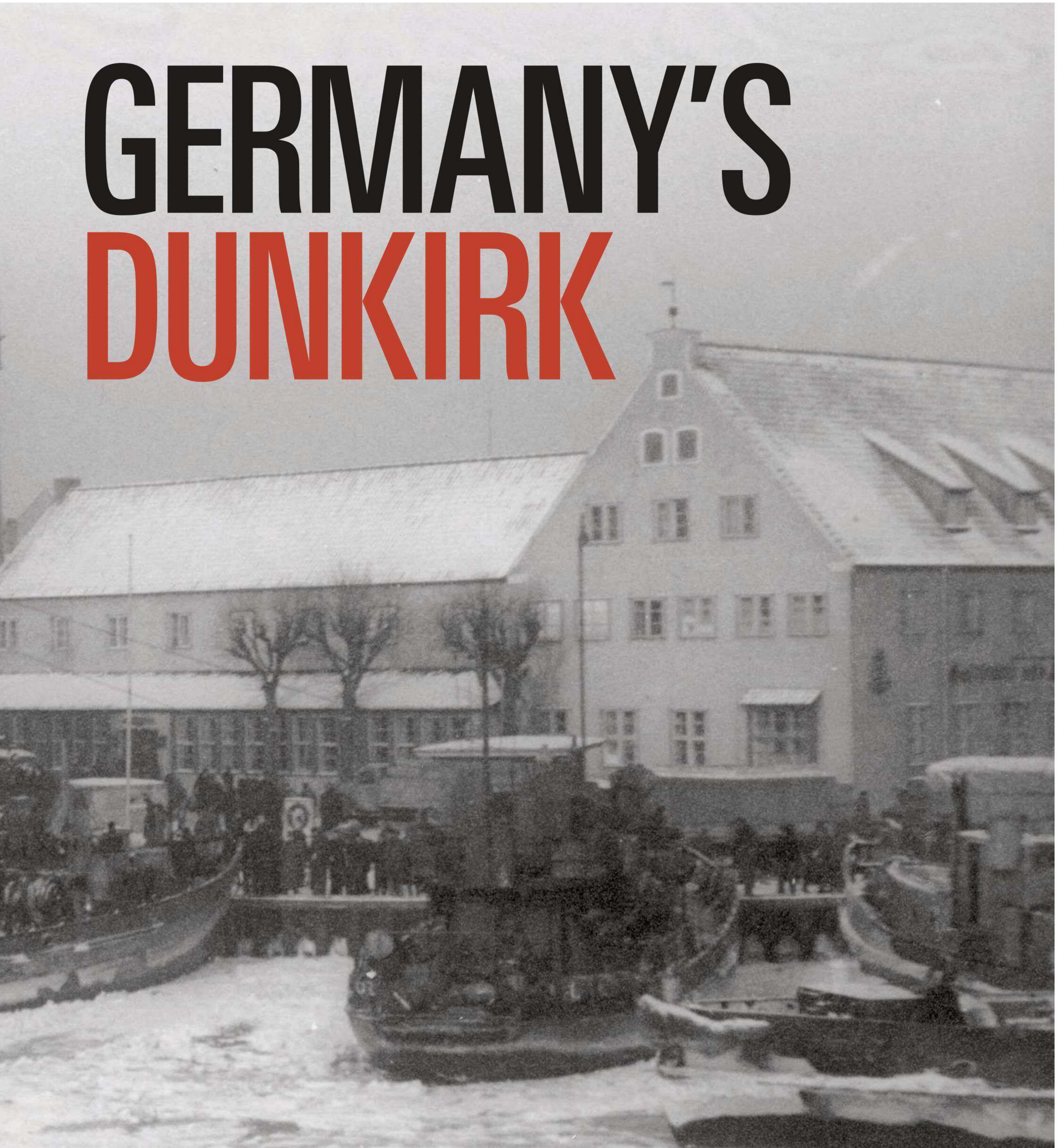
US ships create smokescreens at Leyte Gulf in order to hamper Japanese attacks from the air

GETTY IMAGES

Tortuous wait
As the Soviet army closes in, Germans await evacuation from the East Prussian town of Pillau, 1945. One teacher rescued from the seaport recalled standing "around all day with thousands... everywhere broken glass, dirt and excrement"

BUNDESARCHIV,BILD 146-1989-033-33-PHOTO BUDAHN, H

GERMANY'S DUNKIRK



In early 1945, the German navy rescued over 2 million people from advancing Soviet troops in a desperate bid to stay in the war. **Nick Hewitt** explores an operation that dwarfed the Allied evacuation from Dunkirk in 1940 – both in terms of scale and loss of life

On 1 April 1945, an 18-year-old German soldier named Guy Sajer boarded the troop ship *Pretoria*, an elegant former passenger liner that had been taken over by the German navy, the Kriegsmarine, in 1939. The ship was packed with refugees and wounded soldiers, and Sajer was jammed into a corner of the bridge, the only space available. *Pretoria* steamed west from Hela (in modern-day Poland) for two days, under constant threat of air or submarine attack, until it finally dropped anchor in Copenhagen, and the exhausted Sajer struggled ashore. "We saw things we had almost forgotten," he recalled, "like pastry shops, which we devoured with enormous eyes, forgetting our filthy faces ravaged with misery."

Sajer, from Alsace, had enlisted at the age of 16 and fought for years on the eastern front with the *Großdeutschland* division, an elite armoured infantry formation that had by now ceased to exist. Sajer's last few months had been characterised by desperate fighting in various scratch units comprised of stragglers. He had been subjected to a succession of retreats and evacuations, first by sea from Memel to Pillau, then a nightmare trek across a frozen lagoon to Danzig, a long walk to Gotenhafen, and another perilous sea passage to Hela. Sajer owed his life to German sailors. "Ships gutted by bombs blocked the approaches to the piers. Mutilated corpses floated in the debris. The navy was performing a prodigious task. We would have been lost without it."

Although he was unaware of the fact, Sajer – who recorded his experiences in a 1965 memoir called *The Forgotten Soldier* – was saved from death, or at the very least a long stretch in a Soviet gulag, by Operation Hannibal. This was the desperate last-ditch effort made by Grand Admiral Karl Dönitz, the Kriegsmarine's chief and later Nazi Germany's last führer, to evacuate German soldiers and civilians from under the guns of the advancing Red Army in the east and transport them to safety in the west. It was arguably the greatest evacuation in history, although, like the far smaller but much better-known evacuation at Dunkirk in 1940 (see page 22), this was not an exercise motivated by simple humanity – whatever Dönitz may have claimed in his self-serving memoirs after the war. Like Hitler, and like Churchill in 1940, Dönitz wanted the army back so that it could continue to fight. At his regular naval conference with Hitler on 28 January 1945, the grand admiral informed the führer that "refugees can be evacuated by sea only insofar as this operation does not affect the transfer of fighting forces". Ludicrous as it may seem with the benefit of hindsight, the Third Reich's leaders still believed victory, or at least a negotiated peace, was achievable.

LIKE HITLER, AND LIKE CHURCHILL IN 1940, DÖNITZ WANTED THE ARMY BACK SO THAT IT COULD CONTINUE TO FIGHT

Yet this prospect had already receded even further with the start of the Soviet East Prussian and Vistula offensives on 12 January 1945. The eastern front collapsed, and vast Soviet forces swept through Poland into the heartland of the Reich. As they encountered pockets of resistance, many holding out for no better reason than Hitler's orders to defend every inch of German soil to the last, they simply swept past them.

By March, the Soviets had reached the Oder river and the Baltic coast, leaving hundreds of thousands of German soldiers and civilians cut off and besieged in East Prussia, on the Courland peninsula and around Danzig. Many were sick or starving, and all faced inevitable death or capture by Soviet soldiers with nearly four years of German atrocities inside the Soviet Union to avenge. "Now our soldiers can see how German homes burn," one Soviet soldier wrote in a letter home, "how their families wander round dragging their viper's brood with them... for them there is no mercy."

Eviscerated force

On 23 January, as the Soviet advance into East Prussia gathered momentum, Dönitz ordered Rear Admiral Konrad Engelhardt, head of the Kriegsmarine's Transport Service and an experienced former merchant marine skipper, to launch a *Rettungsaktion* (rescue operation) code-named Operation Hannibal to ferry troops and refugees west.

Engelhardt faced formidable challenges. At Dunkirk in 1940, the Royal Navy was still the world's most powerful navy, but the Kriegsmarine was never large to start with, and it had been eviscerated by 1945. What ships remained were rusty and poorly maintained; they suffered from mechanical problems and fuel shortages, and experienced sailors had been stripped out to fight on land. Merchant shipping was in an even worse state, and many of the great liners on which the evacuation depended had not been to sea since the war began. The Allies

BUNDESARCHIV, BILD 146-1972-093-51-PHOTO O.ANG

Exit strategy
Rear Admiral Konrad Engelhardt (standing, right), the former merchant marine skipper charged with implementing Operation Hannibal, watches refugees board a transport ship

had total control of the air, the Baltic was heavily mined and Soviet submarines were becoming bolder, penetrating deep into the western Baltic. It was a brutally cold winter, and many voyages were plagued by ice. The risks were huge.

To carry out Hannibal, Engelhardt had at his disposal 13 big liners, 25 medium-sized freighters, and hundreds of smaller merchant vessels, including coastal traders, barges and fishing boats. He also had access to most of the Kriegsmarine's remaining warships, including the heavy cruisers *Prinz Eugen* and *Admiral Hipper*, the famous pocket battleships *Admiral Scheer* and *Lützow*, a handful of destroyers and large torpedo boats, several flotillas of minesweepers and countless smaller auxiliaries and patrol boats.

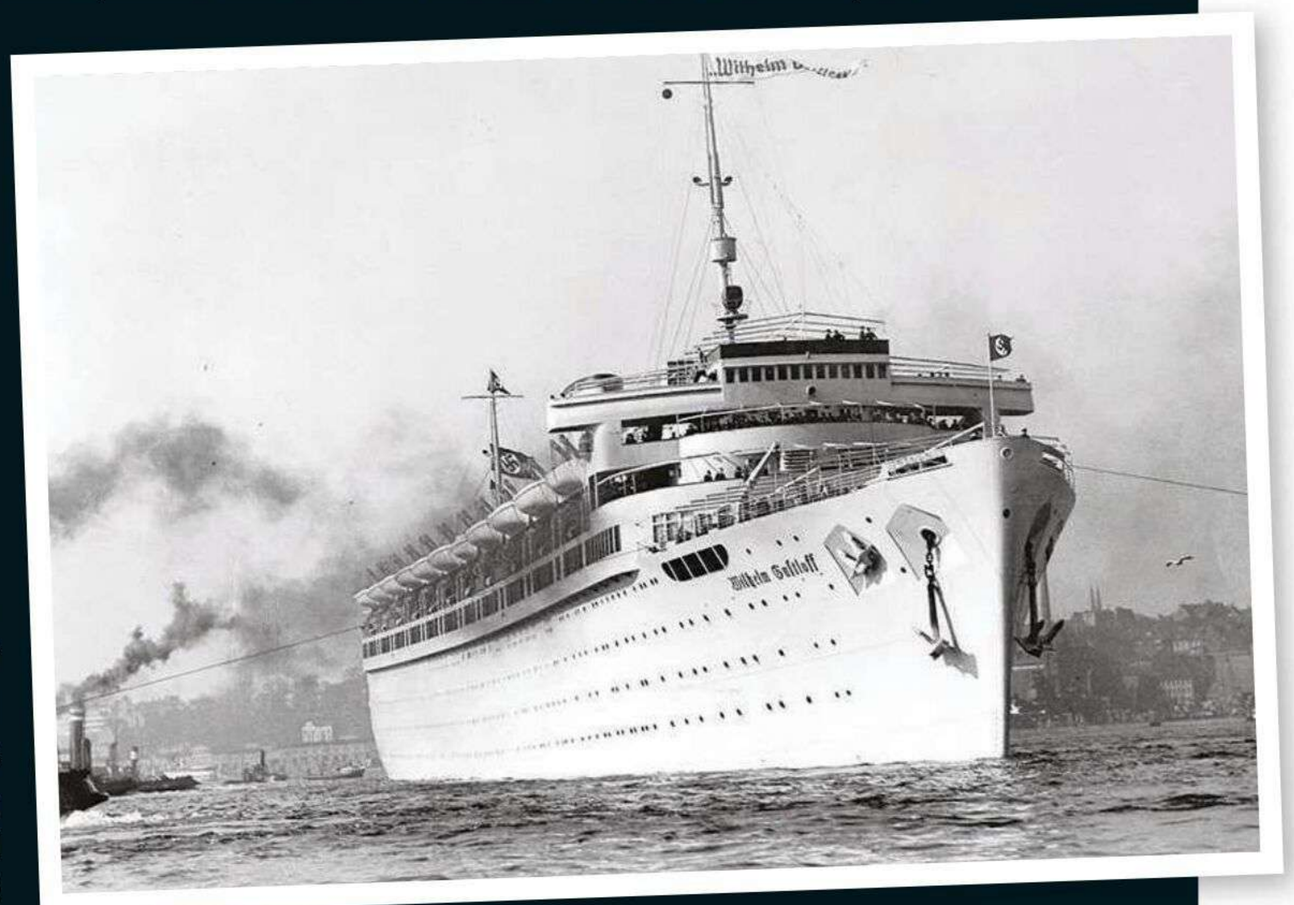
The first extraction took place on 23 January, when 3,000 refugees were brought safely out of Königsberg and Pillau. Generally, the procedure was to first bring in supplies and ammunition for the armies still fighting in the pockets – a sop to Hitler's orders for everyone to fight to the last. Accompanying warships then expended their ammunition bombarding land targets in support of the troops before the force picked up as many refugees as possible and then left for the west. This practice went on consistently for a staggering 115 days, with the last evacuations

HOW HANNIBAL DWARFED DUNKIRK

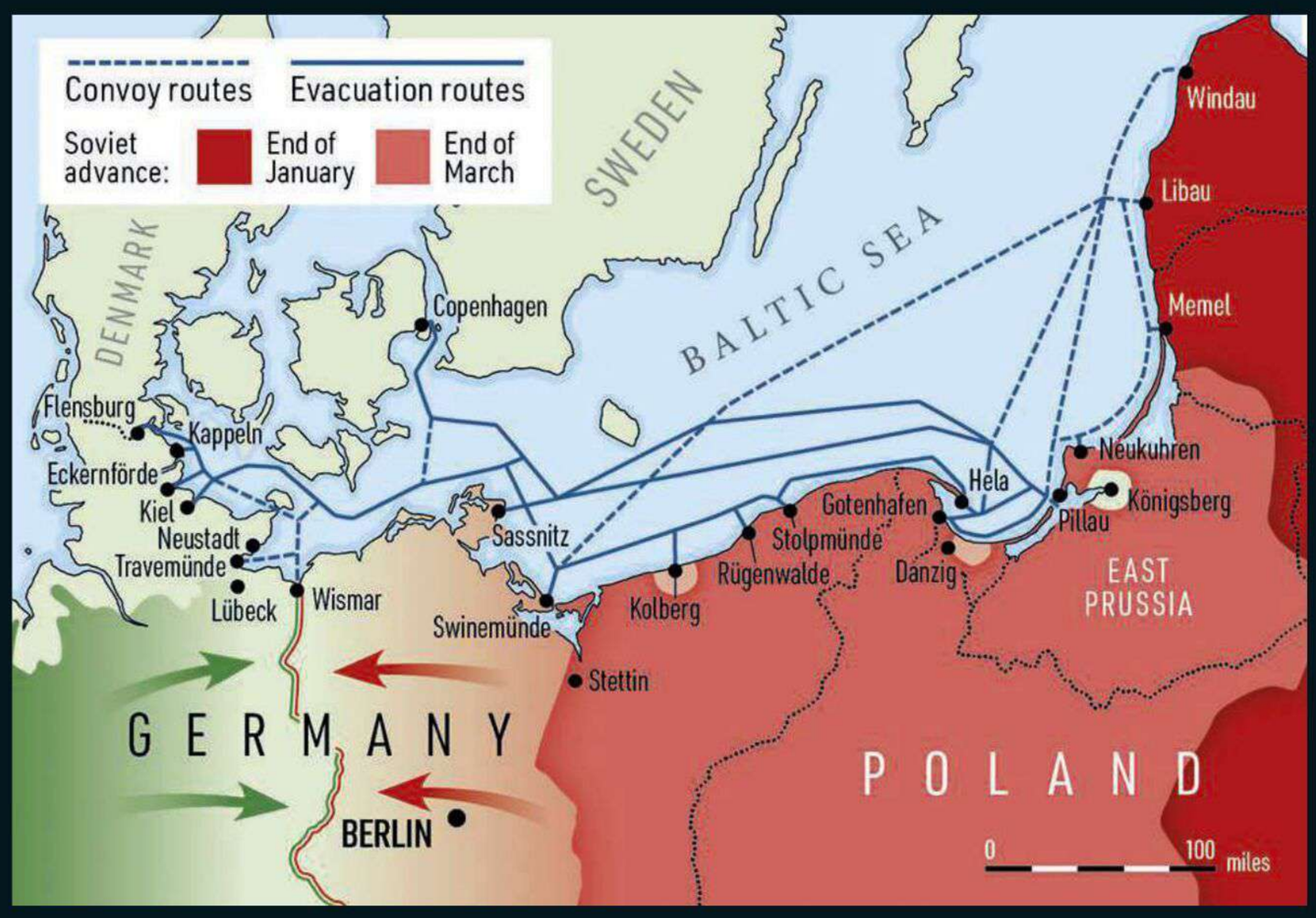
The two Second World War evacuations in figures

	HANNIBAL January–May 1945	DUNKIRK* May–June 1940
Duration	115 days	9 days
Numbers evacuated	c2 million	c338,000
Vessels taking part	Up to 1,080	861
Vessels lost	245	243
Greatest single loss	*Wilhelm Gustloff* c9,600 dead	HMS *Wakeful* 724 dead
Maximum distance	320 nautical miles (Pillau–Kiel)	87 nautical miles ('Route Y')

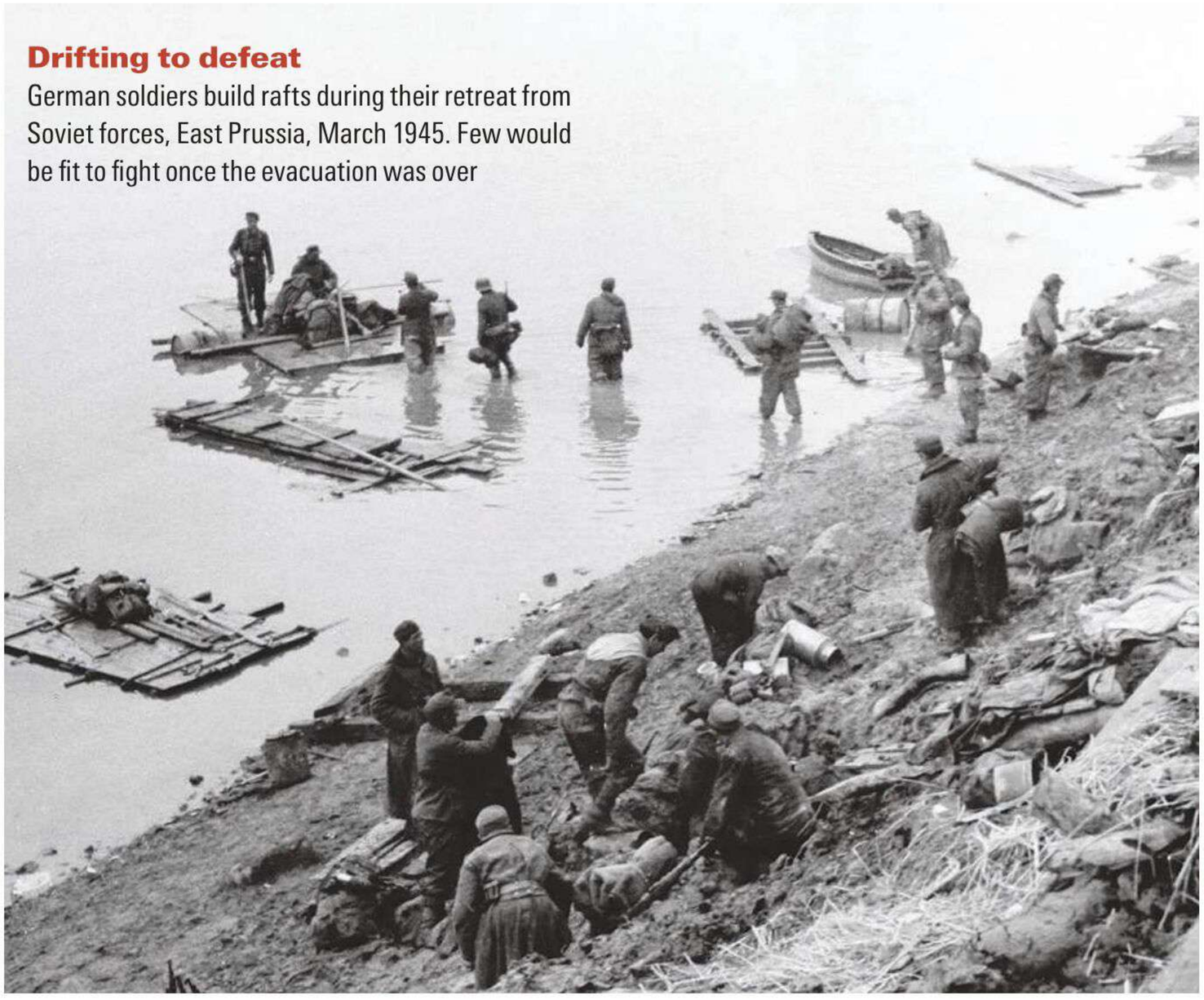
*Statistics do not include operations later in June to evacuate the 2nd BEF from other ports



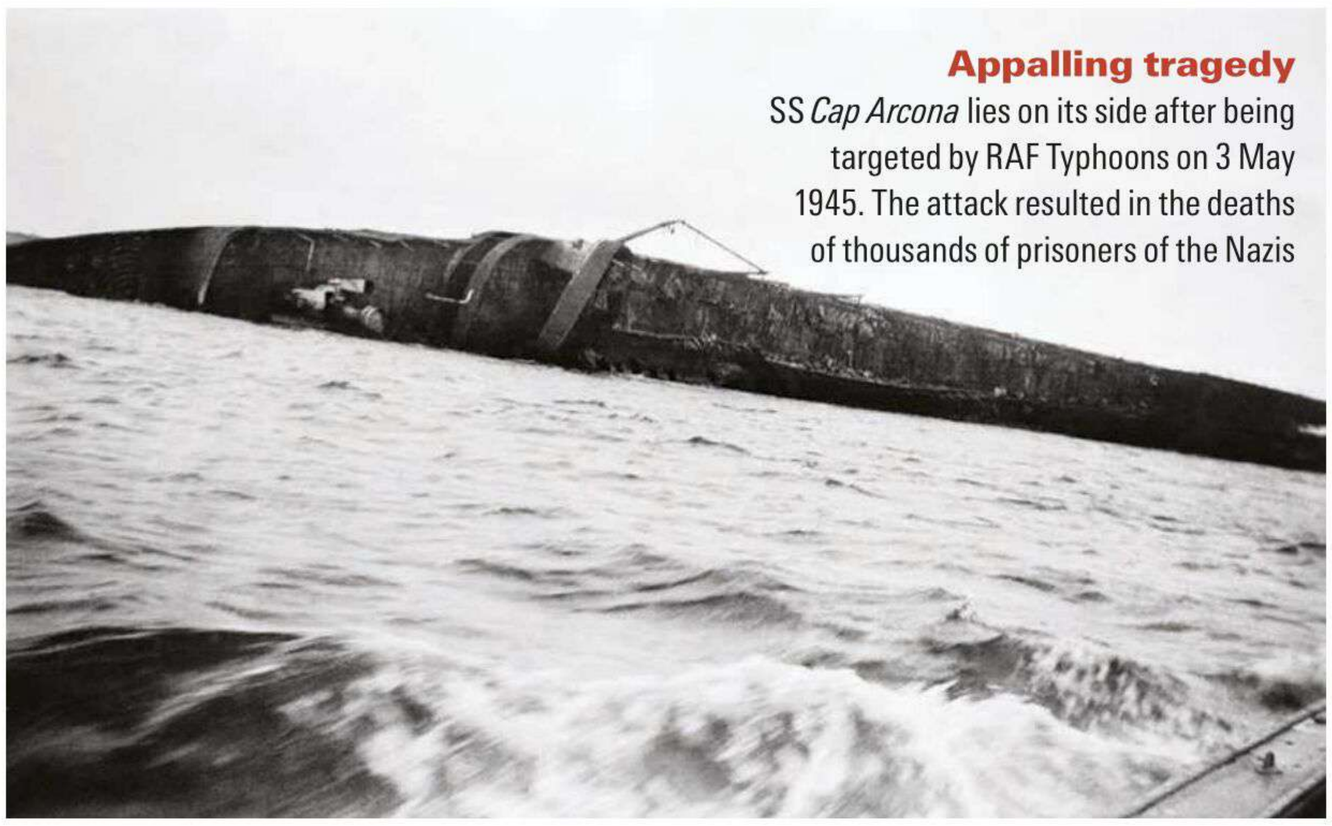
A tragedy
Wilhelm Gustloff (pictured right) sank with huge loss of life during Operation Hannibal (map below)



MARY EVANS/MAP: PAUL HEWITT–BATTLEFILED DESIGN



Drifting to defeat
German soldiers build rafts during their retreat from Soviet forces, East Prussia, March 1945. Few would be fit to fight once the evacuation was over



Appalling tragedy
SS *Cap Arcona* lies on its side after being targeted by RAF Typhoons on 3 May 1945. The attack resulted in the deaths of thousands of prisoners of the Nazis

taking place on 9–10 May, when the war was technically over.

Just how fraught with danger Operation Hannibal was going to be was graphically illustrated early on, in what was perhaps, in numerical terms, history's greatest maritime tragedy. On 30 January, the former Nazi party 'Strength Through Joy' holiday cruise ship *Wilhelm Gustloff* left Gotenhafen for Flensburg. The 26,000-ton liner was so rammed with refugees that sources rarely agree about just how many people it was carrying, but the total was possibly as high as 10,600, including 5,000 children. She was built to carry just 1,463 passengers, so the conditions aboard can barely be imagined.

Wilhelm Gustloff was steaming slowly, nursing her unreliable engines, and had just one escort, the ex-Norwegian torpedo boat *Löwe*. At 9.08pm, three torpedoes from the Soviet submarine S13 slammed into her side, and the great liner heeled over. Although it took over an hour for her to sink, the crowded conditions aboard, the totally inadequate lifesaving gear, and the freezing water made heavy loss of life almost inevitable. There were fewer than 1,000 survivors. It's impossible to say with any accuracy even today precisely how many died, although the total included well over 4,000 children.

Sixteen-year-old Eva Luck was travelling with her family and was one of the few survivors. "The whole music room tilted, and a great cry went up from all the people there," she recalled later. "They literally slid in a heap along the angled deck. A grand piano... rolled across the crowded room, crushing women and children in its path."

As Eva scrambled out on deck, she "saw with horror that the ship's funnel was parallel with the sea... people were jumping in. I could hear the ship's siren and felt the

TOPFOTO/© THE RIGHTS HOLDER (IWM HU 90931)/GETTY IMAGES

Last hope Refugees crowd the quayside in the port of Kolberg. Between them and their destination in the west lay freezing waters, mines and enemy submarines

ice-cold water round my legs."

Wilhelm Gustloff was one of a staggering four sinkings during Operation Hannibal in which the loss of life greatly exceeded the estimated 1,500 who perished during the loss of the *Titanic* in 1912. (These terrible statistics provide a dramatic example of how the mass evacuation has been largely overlooked in popular memory.) Ten days later S13 sank a second ship, the *Steuben*, which went down with the loss of an estimated 4,000 crew and passengers.

Glass, dirt and excrement

By the end of February, some 250 east-west voyages had taken place, with perhaps 300,000 refugees being successfully evacuated. Conditions ashore for the refugees awaiting salvation were desperate. One teacher in Pillau recalled how she could do nothing but "stand around all day with thousands in the filth of the harbour and wait... everywhere broken glass, dirt and excrement". In Danzig, the evacuation continued under fire from Soviet tanks, one Russian gunner remembering how "a gun would fire, then came the explosion of the shell, and another craft capsized and went to the bottom with its load of fascists".

By now the Kriegsmarine's weary ships were starting to fail. On 9 March half of them were reported unserviceable due to mechanical defects or lack of fuel. Despite this attrition, Hannibal continued. Over the night of 4–5 April, German warships managed to extract 8,000 men of VII Panzer Corps from Oxhöft near Gotenhafen, remarkably bringing out a significant proportion of their equipment as well.

Less than two weeks later, a Soviet submarine torpedoed another liner, the *Goya*, drowning up to 7,000 people. The great liners were slow, vulnerable and unreliable, but the situation was desperate, and they could carry huge numbers of people, so Engelhardt had little choice but to keep using them.

Perhaps the most appalling tragedy took place on 3 May 1945, when rocket-firing RAF Typhoon fighter-bombers attacked SS *Cap Arcona* north of Lübeck, setting her on fire and eventually sinking her. Unknown to the RAF pilots, *Cap Arcona* was carrying 5,000 prisoners evacuated from concentration camps in the east, most of whom died. The ship was quite close to land and a few managed to struggle ashore – in some cases to be beaten to death by their SS guards, most of whom had escaped safely.

By May it was clear that Germany was finished. The northern ports were falling to Montgomery's advancing British forces, but nevertheless the Kriegsmarine tried desperately to continue the operation with anything that would float. As leading Nazis tried to negotiate a surrender in the west, in the east, in the words of Field Marshal Wilhelm Keitel, "the struggle continued to rescue as many Germans as possible from bolshevisation and slavery".

On 8 May, with the war essentially over, Kriegsmarine ships made their last run into Hela, evacuating up to 20,000 more refugees. They would undoubtedly have returned for more had the British allowed them. Under Dönitz's leadership, the Kriegsmarine was perhaps the most politicised and loyal of all the three regular services, maintaining discipline and cohesion to the end. It is perhaps unsurprising that Hitler appointed Dönitz as his successor.

Blind optimists
Grand Admiral Karl Dönitz – pictured (centre) with Adolf Hitler and Benito Mussolini – prioritised military demands during Operation Hannibal

GETTY IMAGES

Shocking losses

In total, more than 2 million Germans were estimated to have been evacuated from the east during Operation Hannibal, around three-quarters of them civilians and the rest military personnel. The figure does not include concentration camp prisoners, for whom figures are largely absent and who were certainly not being evacuated to safety.

It was, by any measure, the largest evacuation by sea of modern times, dwarfing the c338,000 evacuated from Dunkirk during Operation Dynamo over nine days in 1940. Nearly 1,000 ships were used, of which 245 were sunk, taking 33,000 evacuees and sailors down with them, mostly on *Wilhelm Gustloff*, *Steuben* and *Goya*. These losses are shocking, but it is important to remember that the Nazi regime was largely responsible for them, as many refugee ships were unmarked, and the regime had ordered military personnel be carried with civilians. Hard as it may be to accept, most of the ships were likely legitimate targets.

Operation Hannibal was a terrible tragedy. It is of course possible to argue, like Keitel, a man who was later executed for war crimes, that "two million Germans were saved from slavery". But does this really excuse the suffering endured?

It is perhaps more important to consider that the whole ghastly exercise could have been avoided had Nazi Germany's fanatical leadership ended the war in January, when it was clear that everything was lost. In fact, it can be argued that these desperate efforts to bring Germans to the west unnecessarily prolonged the war. And it is beyond ironic that a sizeable, if hard to quantify, number of these 'refugees' were Nazi officials and functionaries, who used their privilege to elbow their way onto the transport ships and escape Soviet justice.

Certainly, the fantasy of bringing troops to the west to continue the fight was delusional: the unarmed, often wounded, ragged, starving remnants of once-proud Wehrmacht formations like Guy Sajer's *Großdeutschland* division were in no condition to go into action again.

Nevertheless, Hannibal remains an extraordinary achievement. One of its tragedies is perhaps that so much heroism, determination and skill was applied in such a misguided cause. And, yet, the evacuation from Dunkirk remains by far the better-known event, in Britain at least.

Perhaps the lack of interest in Hannibal is easily explained. It was carried out in the dying days of a despotic regime. Records and photographs are few and far between, and above all there is perhaps little interest among the victors in the last desperate struggles of a defeated enemy. H

IT IS BEYOND IRONIC THAT NAZI OFFICIALS ELBOWED THEIR WAY ONTO TRANSPORT SHIPS MEANT FOR REFUGEES TO ESCAPE SOVIET JUSTICE

Nick Hewitt is an author and naval historian. He is head of collections and research at the National Museum of the Royal Navy

OPINION

NICK HEWITT ON WHY THE WESTERN ALLIES RULED THE WAVES

All of these innovations would have been inconceivable in 1939

For the western Allies the Second World War was a naval war, fought with expeditionary armies, from the collapse of France in 1940 until the brief formation of a new 'western front' during the winter of 1944–45. The continental land war was fought by the Red Army, which owed at least some of its success to lend-lease supplies transported by sea.

Sea control saved a succession of Allied armies from destruction and protected Great Britain from invasion. It gave the Anglo-Americans the flexibility to move resources around the globe, hitting their enemies where they were most vulnerable, and it guaranteed the build-up of the overwhelming US strength required to invade Japan and occupied Europe. Many pre-war naval theorists still believed in the primacy of the big-gun battleship and the inevitability of a decisive Jutland-style battle, but Allied success was ultimately attributable to advances in three key areas.

Firstly, aircraft carriers became the capital ships of a modern navy, extending a fleet's effective striking range from tens to hundreds of miles. Despite it becoming apparent that no battleship could withstand an aerial attack without its own air cover, Germany simply failed to complete any. It could be argued that Britain did not possess enough aircraft carriers either (and soon came to depend on the US for capable carrier aircraft), but those that it did have proved instrumental in defeating Germany and Italy.

However, carrier air power's most significant impact was in the Pacific. Beginning with Midway in June 1942 (see page 66), great actions were fought between fleets that rarely sighted each other. The US demonstrated an almost limitless ability to build these vessels, constructing 24 Essex-class fleet carriers during or immediately after the war. Japan possessed perhaps the world's most mature naval aviation capability at the start of the war but lacked the industrial capacity to keep up with American construction, or the manpower reserves to train replacement pilots. By 1945, the carrier was king, and the US Navy was the ultimate carrier navy.

Secondly, new advances in amphibious warfare significantly bolstered the Allies' success. Prior to 1939, assault landings were only properly considered by the Japanese, and were viewed with apprehension by Allied planners haunted by historic failures such as the First World War's Gallipoli campaign. But by 1945, the Allies had carried out multiple landings on an increasingly greater scale, learning important lessons and refining existing techniques.

Among many innovations developed for arguably the greatest challenge of all – Operation Neptune (see page 90) – were the construction of a complete artificial harbour, and the development of amphibious tanks and prefabricated runways. Combined with new types of landing craft and specialist vehicles for clearing beach obstacles, this allowed the Allies to deposit a huge army on a hostile shore, keep it supplied, and reinforce it to build a second front. All this would have been inconceivable in 1939.

Finally, while Germany understood the potential of its U-boat fleet to destroy British trade and starve the country into submission, it fought much of the war with 1914–18 technology and never had enough submarines. British Asdic (sonar) was countered by surface attacks at night, and centrally controlled 'pack tactics' proved briefly potent, but the Kriegsmarine had little answer to the relentless technological and tactical assault that followed: innovative signals intelligence; well-armed, radar-equipped aircraft; convoys protected by escort carriers and large numbers of improved anti-submarine warships; hard-hitting mortar weapons. By the end of 1943, the U-boats were beaten.

Imperial Japan saw its large submarine force as part of its battle fleet, never coordinating a comprehensive assault on Allied trade, but the US waged a devastating commerce war against the Japanese, who failed to adequately resource trade protection. US submarines, later supported by aircraft, sank 2,345 Japanese merchant ships totalling over 8.5 million tons, crippling Japan's economy and undoubtedly shortening the war.

In returning to an essentially maritime strategy, it can perhaps be argued that the western Allies adopted what military theorist Basil Liddell Hart had called a "British way in warfare", using sea power to retain the initiative, while relying on the Soviets to absorb the mass casualties of a continental land campaign. For the Axis, this strategy would only hasten its demise. H

Nick Hewitt is head of collections and research at the National Museum of the Royal Navy. His books include *Firing on Fortress Europe: HMS Belfast at D-Day* (Imperial War Museums, 2015)

Solid strategy

Construction of an artificial harbour in Normandy, June 1944. Bold advances in amphibious warfare bolstered the Allies' success, argues Nick Hewitt

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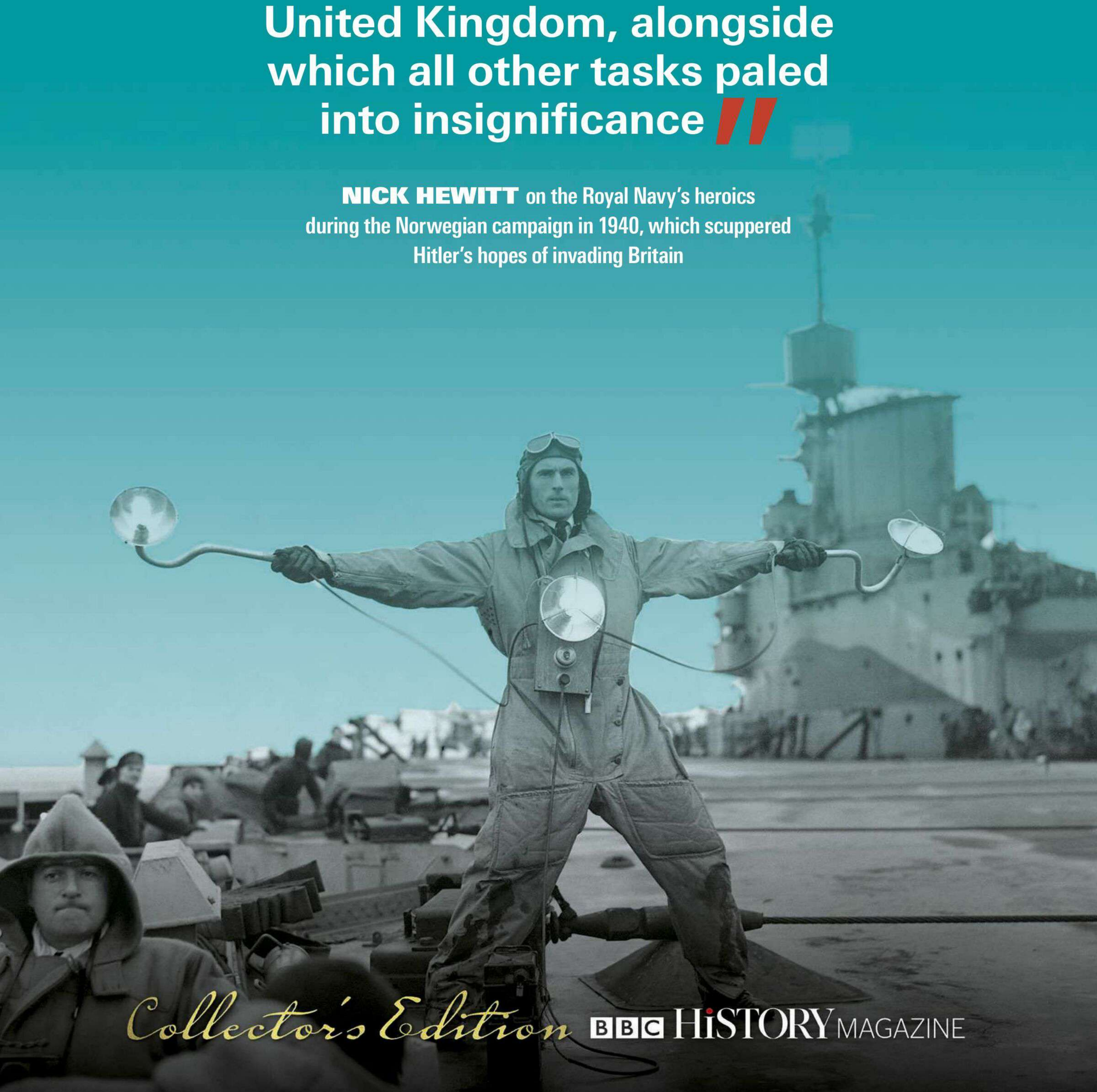

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